

ENHANCING INTERACTIONS OF FATHERS AND THEIR CHILDREN
WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

By

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To the memory of my mother Margaret Ellen McConville-White. Although my time with her was too short, she is and has always been a source of inspiration and unwavering strength.

To my children Gregg and Merissa. Of all the blessings in my life, I am most proud to be their mother.

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By

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The purpose of this research was to characterize the interactions of four fathers and their 3- to 6-year-old children with Attention Deficit Hyperactivity Disorder (ADHD); and evaluate the efficacy of an in-home parent training intervention on father behaviors, father acquisition of parent training skills, and child behaviors. In addition, questions were addressed on the social value of the training intervention and the effects on father-child interactions.

Descriptive data were obtained before and at completion of the study on fathers' beliefs about effectiveness in discipline, their children's behavior problems, and the causality of their children's problem behavior. Fathers were taught parenting and discipline strategies during three in-home parent training sessions. After the parent training sessions, each father was videotaped in his home during father-child play sessions (approximately twice per week for 8- to 12-weeks). A single subject, AB design was used to determine the relationship between the two conditions of our study. Direct

behavioral counts of targeted father behaviors and targeted child behaviors during 10-minute videotaped sessions were recorded. Interrater reliability was 85% with a range from 76 to 93%. After parent training, the fathers showed increased use of positive responses and the imitation with animation skill. In addition, child initiations and child-initiated turns with affirmation increased. Conversely, a decrease was evident in the father initiations, corrective responses, and father-initiated turns with affirmation. Results suggest a consistent positive effect of the parent training intervention on the fathers' use of parenting strategies, the targeted father behaviors, and the targeted child behaviors. Despite father reports of minimal improvement in discipline effectiveness and little change in the child's problem behavior, social validity data indicate that fathers were satisfied with the process and outcome of parent training.

Findings reported in our study provide contextual information on the interactions of fathers and their children with ADHD with implications for further research. Comprehensive parent training interventions that facilitate child-directed play, match treatment to fathers on the basis of cognition, and incorporate specific father-child play strategies are essential for further work with fathers of children with ADHD.

CHAPTER 1 INTRODUCTION

Analysis of the Parent Training Concept

The training and use of parents in therapeutic roles as change agents for their children has been documented in nursing science and the social sciences (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993; Elder, 1995; Erhardt & Baker, 1990; Gross, Fogg, & Tucker, 1995; Kazdin, 1997; Sanders, Markie-Dadds, Tully, & Borr, 2000; Webster-Stratton, 1982, 1984, 1994, 1998). Unfortunately, conceptual problems in the literature affect the characterization and utility of parent training in current research. Various conceptual definitions of parent training, confusing professional jargon, and weaknesses in parent training interventions create ambiguity in nursing and across disciplines (Elder, 1997b). In addition, little theoretical support is documented for parent training interventions for fathers of children with Attention Deficit Hyperactivity Disorder (ADHD) (Schuhman, Foote, Eyberg, Boggs, & Algina, 1998). Consequently, the synthesis of existing knowledge is essential for concept development, to define parent training in terms of its critical attributes or essence, and for the characterization of parent training for fathers of children with ADHD.

This chapter gives an analysis of the parent training concept. Theoretical perspectives and related concepts are discussed. Theoretical significance of the parent training concept in nursing and an operational definition are given, followed by an explanation of a parent training model. This conceptual foundation provides the

theoretical basis for evaluating the parent training intervention for fathers of children with ADHD. Further study is intended to:

- Promote the understanding of parent training and expand the base of knowledge in nursing and among disciplines.
- Determine the most effective methods for training fathers of children with ADHD.
- Facilitate father-child interactions.
- Develop and examine a nurse-parent trainer role.

Analyzing the Range of Meaning of the Parent Training Concept

Review of the literature reveals many inconsistencies and weaknesses in the concept of parent training. Confusing terminology that describes parent training exclusively in professional jargon within a discipline has limited its utility among the social sciences (Elder, 1997b). In addition, the concept of parent training often has a negative connotation suggesting that parents lack the innate skills (or choose not to use the appropriate skills), and must be taught to effectively parent their children. Other researchers propose “cookbook solutions” and self-help advice for managing difficult and challenging problem behaviors in children. Unfortunately, misconceptions in the literature, poorly defined terminology, and confusing jargon have insufficiently described the complexity of the parent training process. Consequently, providers of parent training have the burden of proving the exact strategy in each unique situation.

Particularly significant is the controversy regarding differing strategies of positive reinforcement; and the use of negative reinforcement such as aversive techniques, extinction, and/or punishment (National Institutes of Health [NIH], 1989). Researchers have questioned the moral integrity and ethics of aversive, intrusive, and restrictive practices (LaVigna, & Donellan, 1986). Nonaversive reinforcement alternatives that

achieve similar results have been suggested for children with problem behavior. Advancement of the parent training concept is challenging, given that few nonaversive parent training interventions can be replicated to facilitate sound empirical assessment. Further limitations in the literature include vague diagnoses or criteria for inclusion of children with disruptive behavior (Table 2-1). For example, children are often identified as disruptive, rather than accurately diagnosed. Other researchers fail to distinguish among different parent training approaches, resulting in contradictions in the literature. Poor generalization is evident across settings from the clinic, hospital, home, and/or school. A final point is that parent training packages are often evaluated in their entirety, without specific information about the effectiveness of each component.

Related Theoretical Perspectives

Variations in parent training parallel the diversity of theoretical perspectives. A review of current research revealed a number of theoretical frameworks that have been used to describe the complex interactions among parents and their children. Theories of symbolic interactionism, social-interaction, coercion, self-efficacy, attribution, and physiology seem to be particularly applicable to our research.

Symbolic interactionism reflects the self, the world, and social action (Bowers, 1988). The self and the world are perceived as dynamic, constructed processes of social interaction. Individuals cannot be understood outside of the social context (Hutchinson, 2000). Social-interaction theory is derived from symbolic interactionism. This theory addresses the importance of interactions among parents and their children. Children respond to the parents' behavior. Parent behavior is affected by feedback that parents receive from their children. Patterson (1982) suggests that the persistence of positive effects associated with behavioral effort, is a function of parents' reactions to changes in

their children. Unless improvements in the children's behavior alter the parents' reactions, the effects will be short-lived. Social-interaction theory is supported by decades of research on various aspects of parent training (Griest, Forehand, Wells, & McMahon, 1980; Patterson, Capaldi, & Bank, 1991, Patterson, Reid, & Dishion, 1992).

Coercion theory is a blend of conceptual views derived from social-interaction theory that illustrates an escalating cycle of coercive parent-child interactions. Behaviors of parents and their children are a direct reflection of events occurring in the natural environment. Parents of hyperactive children provide more commands, reprimands, and punishment (Barkley, 1990). Patterson et al. (1991, 1992) suggest that a child's compliance with parental commands relates to the intensity of the parental directives, physical abuse, and/or parental hostility. The child's problem behavior is coupled with negative parent verbalizations, and results in the parent's withdrawal or failure to follow through with a command. Each person is reinforced for increasingly negative and aggressive behaviors. Interdependent negative behavior between parents and their children contributes to the evolution of childhood behavior problems.

Ineffective parental management strategies are suggested as the cause for entry into this coercive cycle (Patterson et al. 1991). Researchers have shown that training approaches for parents of children with ADHD may effectively manage and improve problem behaviors (Anastopoulos, Shelton, DuPaul, Guevreont, 1993; Erhardt, & Baker, 1990; Pelham, Wheeler, & Chronis, 1988; Pisterman, Firestone, McGrath, Goodman, Webster, Mallory, & Goffin, 1992). Thus, parent training interventions for the management of problem behaviors in children may be a crucial step that halts the child's upward spiral of aversive, coercive behavior (Kendziora, & O'Leary, 1993).

Self-efficacy theory (Bandura, 1977) is derived from social-learning theory. This theory has been defined as an estimation of parents' perception of competence in performing various tasks (Coleman, & Karraker, 1998). Parents with high efficacy have greater responsiveness, work diligently to provide positive experiences for their children, and are better able to deal with the challenges of parenting a difficult child (Mash, & Johnston, 1983; Elder, 1995). Research on parent training interventions shows improved maternal self-efficacy, reduced maternal stress, and improved mother-child interactions (Gross, Fogg, & Tucker, 1995; Webster-Stratton, 1990).

Fathers of children with ADHD face unique challenges (associated with problem behavior, long-term behavior management, health care, and treatment). Parent training interventions that target improving a father's competence, perceptions regarding his ability to help his child, and effectiveness in discipline may enhance the father's self-efficacy and promote positive father-child interactions. Father self-efficacy and effective parenting skills are crucial in the management of behavior problems in children with ADHD. Therefore, coercion theory and self-efficacy theory facilitate the operationalization of specific behaviors targeted for intervention, and provide a basis for empirical assessment of our study.

Attribution theory has been used to explain the link between parental beliefs and child behavior (Dix, & Grusec, 1985). Dix & Grusec describe parental beliefs as expectations with internal and external components. Internal attributes in the child are traits that include personality, intellectual ability, and temperament. External attributes are traits that the child is assumed to control (or have the ability to control) such as intention or mood. Typically, parents are more upset by problem behavior in their

children if perceived as an intentional act, a negative disposition, or if parents believe the child has the knowledge to behave differently. Often, these perceptions result in a negative parent reaction (Miller, 1995). For example, a child with ADHD hits the father each time he tries to play with the child. If the father attributes the cause of his child's behavior internally, he may be convinced that his child is "mean." On the contrary, if the father attributes the cause of hitting externally, the father may perceive the child is trying to communicate and interact in the only method he knows. Appropriate father beliefs may alter immediate reactions to the child's behavior, encourage positive responses, and result in the father teaching his child to communicate in a socially appropriate manner.

Furthermore, cognitive development in children may be adversely affected or enhanced by parental flexibility or rigid adherence to previous knowledge, and parental receptiveness to new knowledge (Miller, 1995). In addition to flexibility and receptiveness, parental sensitivity to the child may be a critical variable in the parent training concept. An informed and sensitive parent may have more reliable expectations. These affective reactions mediate the link between the parent's attributions for their children's problem behavior and the subsequent parent behavior (Miller, 1995; Slep, & O'Leary, 1998). Parents who believe their child is capable of controlling problem behavior may be more likely to seek behavioral interventions. On the contrary, parents who believe their child is incapable of controlling problem behavior may not be interested in behavior interventions. Hence, a father's beliefs about the causality of his child's problem behavior may be an important factor that influences the father's reactions, choice of treatment, and treatment compliance.

Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Hyperactivity Disorder (ADHD) is understood as a psychiatric condition exacerbated by the environment; and identified as a set of dysfunctional relationships between an individual with a certain predisposition and an environment that generates particular expectations, demands, and reactions (Weaver, 1993). Current theories suggest that ADHD is a deficiency in the sensitivity to reinforcement that typically motivates children to perform work, inhibit behavior, and sustain responses to assigned tasks (Barkley, 1990; Haenlein, & Caul, 1987). Barkley (1997) asserts that poor behavioral inhibition is the central impairment in children with ADHD, and results in deficiencies in self-control. Consequently, individuals with ADHD may be less sophisticated in manipulating physical and social environments, and have fewer abilities in self-regulation, attention, and memory (Baird, Stevenson, & Williams, 2000).

Baird et al. (2000) argue that self-inhibition is closely intertwined with the evolution of language and coordination among areas of the brain (dopaminergic and noradrenergic systems). Thus, ADHD may be viewed as a disorder of communication as well as behavior. Cognitive processes that assess social context and communication (and coordinate behavior) are impaired. Pragmatic social skill deficits are thought to synergistically interact with behavioral problems, and compound the physiological deficits in children with ADHD.

In summary, ADHD deficits in physiological systems affect cognitive processes, communication, and socially appropriate behavior. Parent training interventions that address physiological deficits, that use behavioral strategies, and that address social skills increase the magnitude of reinforcement for appropriate behavior in children with ADHD (Anastopoulos, DuPaul, & Barkley, 1991). Thus, knowledge of parent training

approaches is potentially important for clinicians and researchers involved in developing and evaluating behavior-management interventions for children and their parents.

Theoretical Significance in Nursing

Theories of symbolic interactionism, social-interaction, coercion, self-efficacy, attribution, and physiology contribute to the operationalization of the parent training concept, and are consistent with King's general system framework (1981) and theory of goal attainment (1992). That is, reciprocal interactions with parents as well as environmental factors contribute to the nature of relationships. The fundamental belief is that human beings interact with their environment. An individual's perceptions, goals, needs, and values influence this interaction; and contribute to the individual's health and ability to function in social roles. Individuals are characterized as rational, perceiving, controlling, purposeful, time-oriented social beings; that actively participate toward set goals with a symbolic way of communicating thought, actions, and beliefs. Health is viewed as a dynamic life experience that implies a continuous adjustment to environmental stress. These assumptions address the rationality of an individual's ability to perceive, interpret, and solve problems; and identify a shared collaborative process of clients and nurses to exchange information, identify goals, and explore the means to attain desired goals (King, 1992).

Describing the interaction process within a general system framework and within the theory of goal attainment helps to operationalize the parent training concept. The concept of parent training is dynamic and contextually dependent, and useful in the behavior management of children. Furthermore, King's description of health is harmonious with current educational and behavioral trends that incorporate individualized, intensive, parent training interventions for the treatment of children with

ADHD. Therefore, King's interacting general system framework is used to operationalize the parent training concept and as the basis for interpreting findings in our study.

Parent Training Research in Nursing

The science of nursing examines the interactions of individuals within families, communities, and society to understand the biological human being, the psychology of human existence, and the sociology of human relationships (American Nurses Association, 1995). Nurses are unique in their approach to health-care concerns with a solid theoretical foundation as a basis for developing and interpreting culturally sensitive, individualized clinical interventions. Furthermore, advanced practice and doctoral prepared nurses are knowledgeable and skilled in diverse research methodologies, populations, settings, and interventions (Elder, 1995; Gross, Fogg, & Tucker, 1995; Tucker, Gross, Fogg, Delaney, & Lapporte, 1997; Webster-Stratton, 1982, 1984, 1994, 1998).

Particularly interesting within nursing research are multi-component parent training interventions for children with behavior problems (Elder, 1995, 1996; Webster-Stratton, 1994, 1998). Various approaches to parent training include individual or group training, didactic counseling, clinic instruction, direct in-home interventions, self-instructional methods, and school-based interventions. For example, Webster-Stratton (1984) used a videotaped modeling intervention and group discussion to provide parents with knowledge and skills for effective interaction and communication with their conduct-disordered children. Gross, Fogg, and Tucker (1995) used Webster-Stratton's (1984) behavioral parent training intervention to test the effectiveness of a parent training program for promoting positive parent-child relationships among families of toddlers

with problem behavior. Webster-Stratton and Hammond (1997) compared three treatment conditions of a parent training intervention for parents of children with early-onset conduct problems, to evaluate generalization and clinical effectiveness of existing parent training program.

Elder (1995) used single subject design methodology to determine the effects of an in-home, communication program for training parents of handicapped children. Elder's research incorporated an in-home parent training intervention with five components including social play, turn taking, communication, language, and conversation. The parent training intervention was designed to address the communicative intent of child behavior and promote social reciprocity (in an effort to reduce aberrant behaviors and facilitate balanced parent-child interactions). Our study builds on Elder's (1995) parent training intervention in a new population. Behavioral strategies for fathers of young children with ADHD were incorporated into the parent training intervention in the context of father-child play, to improve father-child communication, and to promote positive interactions between fathers and their children with ADHD.

Operationalization of Parent Training

The concept of parent training is dynamic and contextually dependent, is useful for managing behavior of children, and represents a behavioral phenomenon of significant interest to nurses. The proposed theoretical associations in parent training are enhanced by a clear operational definition. Elder (1997, pp.103-104) defines parent training as:

- A dynamic, interactive, and instructional process by which caretakers (parents) perceive, assimilate, and use knowledge about their own children in such a way as

- To modify maladaptive and/or deficit behaviors, which in turn will promote the health and general well being of their children and families.
- To facilitate the children's learning and successful current and future environmental adaptation within their homes and communities.

Critical attributes derived from this definition include contextual clarification, assessment, training, intervention development and implementation, and the evaluation of intervention effectiveness (Figure 1-1). This analysis delineates the dimensions of the parent training concept, clarifies ambiguities, and provides guidance for our study. Furthermore, it is expected that this parent training model may bridge gaps in existing knowledge, and provide a foundation for effective clinical practice and research in interventions for problem behavior in children with ADHD.

Statement of the Purpose

The purpose of this research was to characterize the interactions of fathers and their child with ADHD and evaluate the efficacy of an in-home parent training program designed for fathers. The specific aims are:

- Characterize the interaction of fathers and their young children with ADHD during father-child play sessions before father participation in an in-home parent training intervention for fathers.
- Evaluate the effects of a 12-week in-home parent training intervention (for fathers of young children with ADHD) on father behaviors and father acquisition of parenting skills.
- Evaluate the effects of a 12-week in-home parent training intervention (for fathers of young children with ADHD) on child behaviors.
- Assess the social validity of the in-home parent training intervention for fathers.

Parent Training Process

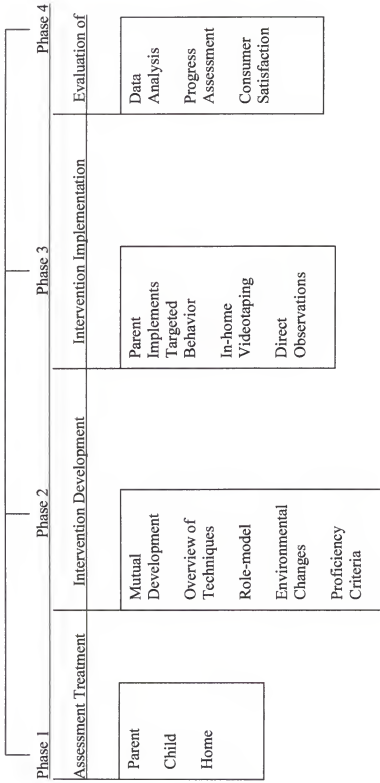
Mutual Development

Figure 1-1. Parent training process (Elder, 1995)

CHAPTER 2 REVIEW OF LITERATURE

The purpose of this review is to provide a general overview of the parent training concept as it relates to treatment for young children with ADHD. Current research is given on the characteristics of ADHD and the assessment and the diagnostic process in children; followed by a review of research on pharmacotherapy, parent training interventions, social reciprocity, and the role of fathers in childhood behavior problems.

The Nursing Practice Analysis Tool (NPAT) (Moody, 1990) was used to assess research on parent training interventions for children with problem behavior in several disciplines (1983-2004) (Table 2-1). Most of the research is considered empirically supportive. However, few researchers have shown parent training interventions that used appropriate data collection and analysis for parents of children with ADHD. Many studies had small sample sizes that were inadequate for the statistical analyses, or used complex procedures that discouraged replication.

Conceptual ambiguity regarding parent training in the literature (as well as the lack of research with theoretically based, parent training models) further complicates the treatment approach for children with ADHD. Equally important is that young children with ADHD are at substantial risk for future impairment. Parents are often confused and frustrated by controversial research on stimulant therapy, the efficacy of parent training approaches, and the lack of appropriate resources. Furthermore, parent training on behavioral contingencies related to punishment may not be appropriate for parents who are already prone to violence or abusive interactions. Consequently, there is a need for

interactive, individualized, and comprehensive parent training interventions that address parents' beliefs, family risk factors, obstacles to treatment, and problem behavior in children with ADHD.

Features of ADHD in Young Children

Attention Deficit Hyperactivity Disorder is a chronic psychological condition (identifiable in the preschool age range) that occurs more often in boys than girls, and accounts for 30 to 50% of pediatric mental-health referrals (American Academy of Pediatrics [AAP], 2000; Multi-Modal Treatment of ADHD Cooperative Group [MTA], 1999; U.S. Public Health Service, 1999). Prevalence rates for ADHD have varied substantially because of changes in diagnostic criteria, assessment in varied settings, differences in methods of sample selection, and differences in the nature of the population studied (American Academy of Child & Adolescent Psychiatry [AACAP], 1997; American Psychiatric Association [APA], 1968, 1980, 1987, 1994; Barkley, 2000). Currently, the Diagnostic and Statistical Manual for Mental Illness-IV (DSM-IV) cites a prevalence rate of 3 to 5% in school-age children having ADHD (APA, 1994). Other studies have reported a prevalence range of 2.5 to 6.4% in elementary school-age children (DuPaul, 1991; Pelham, Gnagy, Greenslade, & Milich, 1992). Girls with ADHD share with boys the symptoms of inattention, hyperactivity/ impulsivity, school failure, and comorbidity with mood, anxiety disorders, and learning disabilities (Faroane, Biederman, Keenan, & Tsuang, 1991; Gaub, & Carlson, 1997). However, fewer girls than boys receive a diagnosis of ADHD, possibly due to less prevalent rates of comorbid oppositional disorder and conduct problems.

The core deficit in ADHD is a failure to inhibit or delay motor responses, while sensory detection or early information processing is intact (Barkley, 1994, 1997).

Inadequate response inhibition creates a deficit in four distinct executive functions: emotional regulation, nonverbal working memory, speech internalization, and self-directed play (Barkley, 1990, 1997, 2000). The deficits in executive functioning affect motor coordination, mental calculation, rule-governed behavior, speech and fluency, and the evolution of language (Baird et al. 2000; Barkley, 2000). Baird et al. (2000) describe ADHD as a disorder of communication, with problem behaviors that reflect dysfunction. Cognitive processes are impaired that coordinate behaviors for assessing social context and communication. Consequently, children with ADHD are less sophisticated in manipulating physical and social environments, and have difficulties with attention, memory, and self-regulation.

Reportedly, children with ADHD lack positive problem-solving skills, react in coercive ways, anticipate fewer consequences, have social deficits, and have impaired communication skills (Ladd, Price, & Hart, 1990; Mize, & Cox, 1990; Puttallaz, & Wasserman, 1990; Slaby, & Guerra, 1988). Deficits in social skills interact synergistically with behavioral problems and compound the physiological deficits. Intervention during the preschool years is critical, and may be more effective than intervention after age seven (Baird et al. 2000). Reasons for this include that young children have a shorter learning history associated with problem behavior, have fewer competing external influences, and have fewer cognitive resources for questioning and challenging behavioral interventions (Hembree-Kigin, & McNeil, 1995). In addition, young children are more accepting of new behavioral expectations, and exhibit affection toward their parents (and cooperative behaviors that can be shaped to occur more frequently).

Characteristics of ADHD

Attention Deficit Hyperactivity Disorder is characterized by inattention and/or hyperactivity-impulsivity with impairment in academic achievement and family and peer relationships (APA, 1994). The DSM-IV (APA, 1994) defines inattention as failing to give close attention to detail, difficulty sustaining attention, and poor listening; failing to finish work, difficulty organizing, and avoidance of sustained mental effort; and losing things, distractibility, and forgetfulness (APA, 1994). Hyperactivity includes behaviors such as fidgeting and the inability to stay seated; excessive running, climbing, or talking; and difficulty playing quietly. Impulsivity is described as blurting out answers, difficulty in waiting for a turn, and interrupting or intruding on others.

The core clinical features of ADHD may be detected as early as 3-years-old, may lead to significant social and emotional impairments, and often have comorbid disorders (Campbell, 1995; Campbell, & Ewing, 1990; Klein, & Manuzza, 1991). Young children with high levels of socially aggressive behavior constitute a high-risk population for further impairment in academics, peer relationships, and general adaptive functioning (emotional and social difficulties), and an earlier onset of conduct disorder, oppositional-defiant disorder, and antisocial behavior (Barkley, DuPaul, & MacMurray, 1990; Loeber, 1990). There has been considerable debate concerning the legitimacy of hyperactivity as a diagnosis (Hinshaw, 1994). However, controversy does not exist concerning the significant number of children who suffer from symptoms associated with ADHD, social and academic impairments, and comorbid conditions.

Parents of children with ADHD often have high rates of socially aggressive behavior, harsh child discipline, marital strife, and a high risk of psychiatric disturbances (Barkley, Guevremont, Anastopoulos, & Fletcher, 1992; Patterson et al. 1992).

Furthermore, factors such as a family history of ADHD, psychosocial adversity, and comorbid conditions all increase the risk of persistence of ADHD symptoms into adolescence and adulthood (Biederman, 1998). Marakovitz and Campbell (1998) reported that one-half of children who exhibited problem behaviors at preschool age had improved by age six. On the contrary, one-half of children continued to exhibit persistent problems (one-third of which met DSM-III criteria for ADHD). Children with persistent problems at age six were more likely to have an externalizing disorder at age nine. In summary, young children diagnosed with ADHD constitute a high-risk population for significant impairment in adolescence and adulthood. Therefore, the selection of young children with ADHD for participation in our study is an appropriate strategy.

Assessment and Diagnostic Process in Children with ADHD

The diagnosis of ADHD according to the DSM-IV requires the presence of six or more extremely inappropriate symptoms in each symptom group (inattention, hyperactivity, and impulsivity) for at least six months (APA, 1994). Symptoms are evident before age seven and are inconsistent with the child's developmental level and intellectual ability. Functional impairment must be present in two or more settings, with clinically significant impairment in social, academic, or occupational functioning. Signs of ADHD may not be observed in highly structured or novel settings. Conversely, symptoms typically worsen in unstructured and minimally supervised situations.

Assessment of children with behavior problems may include a parent interview, a child interview, standardized rating scales (Achenbach, 1991; Connors, 1969; Barkley, 1990), behavior observations in naturalistic settings and/or clinical settings, medical evaluations, speech and language evaluations, and psychological testing. The core of the assessment process is a structured parent interview to ensure coverage of ADHD

symptoms, and to rule out psychiatric or environmental causes of behavioral symptoms (AACAP, 1997). Reports of behavior, learning, school attendance, academics, social skills, and psycho-educational testing are essential. Standardized instruments are used to obtain information from parents, teachers, social workers, and guidance counselors. Structured observations in naturalistic and clinical settings assist in distinguishing hyperactive and aggressive behaviors, the teacher's management style, and characteristics of the social and academic environment (AACAP, 1997; Vitaro, Trembley, & Gagnon, 1995).

A variety of disorders may be mistaken for ADHD (e.g. impaired vision or hearing, seizures, head trauma, acute or chronic medical illness, poor nutrition, insufficient sleep, anxiety disorders, depression, bipolar conditions, mental retardation, and learning disabilities). Therefore, a medical evaluation is essential to a differential diagnosis and the determination of comorbid conditions. Included in the medical evaluation are a complete medical history, a physical exam, and laboratory tests when indicated by history (e.g., lead level or thyroid function). Clinical assessments of hair analysis and/or zinc have no empirical support and are not indicated (McGee, Williams, Anderson, McKenzie, Parnell, & Silva, 1990). The child's and family's histories include questions related to the use of prescribed, over-the-counter, and illicit drugs; lead screening; thyroid disease; genetic syndromes such as fragile X syndrome and fetal alcohol syndrome; risk factors such as poor maternal health, smoking, toxemia, postmaturity; and health problems or malnutrition in infancy. Neurological testing may be indicated by the medical evaluation. However, brain mapping and neuro-imaging are not used in the diagnosis of ADHD because of insufficient empirical data (AAP, 2000b).

Research on Children with ADHD

Historically, the behavior problems of preschool children were considered transient processes that resolved as children matured. However, current researchers assert that children with an early onset of behavior problems in the preschool and kindergarten years are at a higher risk for emotional and externalizing behavior problems during later childhood, adolescence, and adulthood (Barkley, DuPaul, & McMurray, 1990; Campbell, March, Pierce, Ewing, & Szumowski, 1991). In addition, 70% of the children with ADHD have comorbid conditions that complicate the process of diagnosis and treatment (MTA, 1999). Research on family heterogeneity of ADHD reveals that ADHD and major depression share similar familial vulnerabilities; and comorbidity with conduct disorders and bipolar disorders may be a distinct familial subtype (Biederman, 1998).

No single etiology leads to a diagnosis of ADHD. Emerging neuro-psychological and neuro-imaging literature suggests that abnormalities exist in the brain's frontal networks in children with ADHD (Castellanos, 1997). Data from genetic, family, twins, and adoption studies points to a genetic origin for some forms of ADHD (Faraone, Biederman, Keenan, & Tsuang, 1992; Faraone, & Biederman, 1994). Other possible etiologies include psychological adversity, perinatal insults, low birth weight, and yet-unknown biological causes (Biederman, 1998).

Researchers have proposed that various environmental toxins (e.g., food additives, refined sugars, and allergens) produce a causal effect in the development of ADHD. However, investigations of such associations failed to yield empirical support (Wolraich, Milich, Stumbo, & Schultz, 1985; Wolraich, Wilson, & White, 1995). Research supports a correlation between elevated blood lead levels in children with

hyperactivity and inattention as well as an association with maternal alcohol consumption and cigarette smoking during pregnancy (Gittelman & Eskinazi, 1983; Milberger, Biederman, Faraone, Chen, & Jones, 1996; Streissguth, Bookstein, Barr, & Sampson, 1994).

Various interventions that involve medication, parent training, behavior modification in the classroom, and combined treatments have been studied extensively in elementary school-age children with ADHD (Abramowitz, Eckstrand, O'Leary, & Dulcan, 1992; Anastopoulos et al. 1993; Greenhill, 1998; Mustin, Firestone, Pisterman, Bennett, & Mercer, 1997; MTA, 1999; Pelham, Wheeler, & Chronis, 1998; Pisterman, Firestone, McGrath, Goodman, Webster, Mallory, & Goffin, 1992). The limitations of this research included few long-term studies, only short-term gains of treatment efficacy, a focus on boys, and a lack of evidence on differential improvement reported for treatment conditions (Barkley, DuPaul, & McMurray, 1990; Klein, & Mannuzza, 1991; McMahon, 1994).

In summary, the diagnosis of ADHD in a young child encompasses a complex set of interacting child and family issues with an enormous impact on society in terms of financial expense, stress to families, and interference with academic and vocational activities (Biederman, 1998). Numerous studies have examined potential causes, behavioral characteristics, and the cognitive, social, and academic impact of ADHD on children (Barkley, 1996; Castellanos, 1997). Despite extensive research, ADHD remains a controversial condition with respect to diagnosis and treatment. In many cases family practice and pediatric clinicians are required to make important decisions regarding diagnosis and treatment without the benefit of sound empirical data. Furthermore, the lay

media have perpetuated misconceptions often held by parents of children with ADHD about vitamin therapy, diet therapy, decreased sugar consumption, poor parenting, and the side effects of stimulant medication (Wolraich, Milich, Stumbo, & Schultz, 1985; Wolraich, Wilson, & White, 1995). This is particularly troubling in that parental involvement appears to be a critical component in the treatment of children. Consequently, there is a dire need for empirically validated medical, psychological, and educational services for children with ADHD and their families.

Pharmacotherapy Research

Research involving pharmacotherapy for children with ADHD is extensive. Empirical study on stimulant therapy for children with ADHD reveals positive short-term effects in multiple domains of functioning and a lack of evidence for long-term improvement (Mash & Johnson, 1990; Pelham, Wheeler, & Chronis, 1998; Pelham, & Lang, 1993; Swanson, McBurnett, Christian, & Wigal 1995). Despite the limitations, pharmacotherapy with stimulants is the current established treatment for ADHD (MTA, 1999). A lack of empirical support for long-term improvement provides the justification for research involving behavioral interventions for children with ADHD.

Parent Training Intervention Research

Parents have an enormous influence (either positive or negative) on a young child's behavioral and emotional development. Unfortunately, parents of children with ADHD often have high rates of socially aggressive behavior, harsh discipline, marital conflict, and psychiatric illness (Patterson et al. 1992). These parents are less likely to assume the cause of child behavior, more likely to use negative parenting strategies, and more likely to mention medication therapy for their child (Barkley, 1990; Johnston, 1996; Johnston, Reynolds, Freeman, & Geller, 1998). Coercive parenting practices may

adversely affect the development of the preschool child's social-cognitive skills, and predict conduct problems (Dodge, Bates, & Pettit, 1992; Eyberg, 1988; McMahon, 1994; Patterson et al. 1991). Hence, parenting behavior and parent-child interactions are key processes that affect child behavior (Richters et al. 1995).

Empirically supported parent training programs include clinical behavior therapy, direct contingency management, cognitive-behavioral interventions, and intensive, multi-component behavioral treatments. Pelham et al. (1998) reported that behavioral parent training interventions and behavioral classroom interventions primarily in outpatient settings are empirically supported treatments for children with ADHD. However, many studies identify disruptive children because of symptoms associated with ADHD without an explicit diagnosis. Other concerns include a lack of evidence in reducing children's conduct problems and improvement of social skills, and poor generalization of improvements in social and cognitive skills from the laboratory, hospital, or school to other settings (Denham, & Alemeida, 1987; Kazdin, Esveltd-Dawson, French, & Unis, 1987; Prinz, Belchman, & Dumas, 1994).

Contingency management approaches are similar to clinical behavioral therapy, but are characterized by more intensive interventions including token economy systems, time out, and response cost components. Research has been conducted in controlled settings by trained individuals and often involved single subject design (Abramowitz et al. 1992; DuPaul, Guevremont, & Barkley, 1992; Pelham, Carlson, Sams, Vallano, Dixon, & Hoza, 1993). Treatment effects typically have been larger than the results of clinical behavior studies, but less than results of pharmacotherapy studies (Pelham et al. 2000).

Cognitive behavioral treatments (e.g., verbal self-instruction, problem solving, cognitive modeling, and social skills training) have been studied in children with ADHD to promote self-controlled behavior. This approach was designed to provide internal mediators that facilitated generalization and maintenance of behavioral effects. Unfortunately, empirical evidence did not support clinically significant changes in the behavior and/or the academic performance of children with ADHD (Abikoff, & Gittelman, 1984). Limited, but promising data supports the efficacy of social skills training and problem-solving interventions when combined with intensive, multi-component, behavioral treatment packages (Pelham, & Hoza, 1996; Pfiffner, & O'Leary, 1997). Thus, intensive behavior-management treatment packages including parent training interventions applied across settings may maximize the short-term impact of behavioral treatments.

Research on parent training interventions for parents of preschool children has been favorable for the reduction of behavior problems (Barkley, Shelton, Crosswait et al. 2000; Eyberg, & Robinson 1982; Tucker, Gross, Fogg, Delaney, & Lapporte, 1997; Webster-Stratton, 1998). Parents were taught to use operant procedures during interactions with their children to modify problem behavior with positive reinforcement techniques based on Hanf's (1969) two stage training model (Barkley, 1987; Elder, 1995; Eyberg, 1988; Webster-Stratton, 1982, 1985, 1994). This approach has been effective in children with a wide range of behavior and maintained as long as a year (Kazdin et al. 1987).

Eyberg (1988) integrates operant methods and traditional play therapy techniques in a unique approach to parent training for preschool children with problem behavior,

known as Parent-Child Interaction Therapy (PCIT). The purpose of PCIT is to create a positive, mutually rewarding relationship between the parent and the child in the context of dyadic play situations. Parents are taught relationship-enhancement skills (e.g., praise and active listening), teaching skills (e.g., to follow the child's lead in play and avoidance of questioning, criticizing, or punishing the child), and behavior management skills for effective discipline (e.g., direct commands and time-out). This approach is widely utilized in the research of children with problem behavior (Eyberg, & Robinson 1982; McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991; Webster-Stratton 1982, 1985, 1994). It has been adapted for use in children with varying exceptionalities (e.g., autism, developmental delay) (Elder, 1995; McElreath, & Hembre-Kigin, 1994).

Similar to the PCIT, Elder's (1995) research with parents of young autistic children incorporated a parent training intervention with five components (social play, turn taking, communication, language, and conversation). Elder's (1995) in-home, parent training program is designed to address the communicative intent of child behavior, and to promote social reciprocity in an effort to reduce aberrant behaviors. Parenting skills (imitating with animation and expectant waiting) developed by MacDonald (1989) are taught to parents. These skills are particularly important to facilitate balanced parent-child interactions. In addition, parents of a child with autism are taught to identify child initiations; to consistently respond to the child initiations; to give the child adequate time to respond to parental initiations; and to allow the child to direct the parent-child play session. This study provided essential information regarding the interactions between the parents and their children for the development of a new parent training intervention for parents of children with ADHD.

In-Home Parent Training

Seminal work conducted by Baer, Wolf, and Risley (1968) reveals that skills taught in one setting are not expected to generalize to other settings without planned systematic implementation. Furthermore, a deliberate change in behavior will not occur unless the behavior is reinforced regularly in the environment. Therefore, father-child interventions for problem behavior in children cannot be expected to generalize to home settings unless the father and child are trained in familiar home environments where naturally reinforcing activities were more likely to occur. Unfortunately, the majority of parent training research takes place in clinical and classroom settings, rather than home settings.

There are several disadvantages to conducting in-home research. These include a vulnerability to disruption in session scheduling and the possibility that the physical parameters of the home environment may cause unexpected interruption (Elder, 1995). A modified structuring of the home setting (e.g., disconnected phone and television) can minimize distractions. Despite the vulnerability to disruptions in session scheduling, Elder (1995) found that parent participation was encouraged by in-home parent training and videotaped father-child play sessions. Elder reported that subjects were more likely to keep scheduled appointments and participate regularly at home because of the convenience and decreased expenditure of the family resources. In addition, in-home parent training and observation provided essential contextual data about individual subjects in naturalistic settings.

The Role of Fathers in Childhood Behavior Problems

Reviews of parent training interventions with ADHD children were highly promising (Webster-Stratton, 1993). However, parent training research was comprised

primarily of mother and/or classroom training (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Pruett, 1998; Webster-Stratton, 1985). Few studies document the father's perceptions, father-child interactions, and paternal influences on young children with problem behavior (Amato, & Rivera, 1999; Hoza et al. 2000; MTA, 1999; Webster-Stratton, 1985; Yogman, Kindlon, & Earls, 1995). Consequently, paternal influences on children with ADHD and the patterns of father-child interactions are largely unexplored. Hence, there is a critical need for research on parent training interventions that include fathers.

Despite the under-representation of fathers, a growing interest is evident in the relationship of paternal factors to child and adolescent adjustment (Phares, 1996; Rolf, Masten, Cicchetti, Neuchterlein, & Weintraub, 1990). Fathers of children with ADHD were more likely diagnosed with ADHD during their own childhood (Frick, Lahey, Christ, Loeber, & Green, 1991). Parent psychosocial factors were shown to increase the likelihood of the development of ADHD in children (Barkley, 1990). However, fathers of children with ADHD did not have higher rates of depression or higher rates of alcohol abuse (Cunningham, Benness, & Siegel, 1988; Reeves, Werry, Elkind, & Zametkin, 1987). On the contrary, fathers with a history of substance abuse had children with higher rates of covert antisocial behaviors (Nigg, & Hinshaw, 1998).

Current research reflects that fathers have complex, multidimensional roles; direct and indirect patterns of influence; and that the social construction of fatherhood varies across cultures (Belsky, 1990; Cummings & O'Reilly, 1997; Furstenburg, 1988; Lamb, 1997; O'Hare, 1995; Pleck, & Pleck, 1997; Steinberg, Kruckman, L., & Steinberg, 2000). Relationships with fathers, stepfathers, and sets of families influence a child's

attachments, social-emotional competencies, and linguistic and cognitive abilities (Cabrera et al. 2000). Research on father involvement in childcare has shown improved father-child relationships, more attentive fathers, and fathers that felt intrinsically important to their children (Amato & Rivera, 1999; Lamb, 1997). An inverse relationship was reported between father involvement and childhood behavior problems, cognitive development, and social competence (Amato, & Rivera, 1999; Yogman, Kindlon, & Earls, 1995).

Father involvement in childcare during the middle childhood period was associated with greater academic achievement, less emotional distress, and less delinquent behavior (Furstenberg, & Harris, 1993; Harris, Furstenberg, & Marmer, 1998; Nord, Brimhall, & West, 1997). In addition, Webster-Stratton (1985) reported significant improvement in fathers' attitudes and children's behavior after a parent training intervention. In summary, interdependent behavior between a father and a child may contribute to the evolution of behavior problems and improved treatment outcomes for fathers and their children. Further exploration is necessary to develop an understanding of the father's role, the complex patterns of influence on children, and to facilitate interventions that support positive father-child interactions. Further research on father-child interactions will support the development of specific, individualized parent training interventions for families of children with ADHD.

The Role of Social Reciprocity in Parent Training

Lamb & Easterbrooks (1981) propose that infants are biologically predisposed to emit signals to which adults are biologically predisposed to respond. If the parent consistently responds promptly and appropriately to the infant's signals, the infant perceives the parent as predictable and reliable. This perception in social reciprocity

fosters the formation of secure child and parent attachments. Reciprocal parent and child turn taking is considered an essential factor in language development (Elder, 1995; Furrow, Nelson, & Benedict, 1979; Wetherby, 1986). Children with ADHD often have impairments in speech, language, and communication and may not engage in turn taking procedures (Baird et al., 2000; Cunningham, Reuler, Blackwell, & Deck, 1981; Conti-Ramsden, 1990). Consequently, fathers may not be reinforced to continue interactions with their children. Thus, children with ADHD may have maladaptive deficits in cognitive processes and communication that create problems in a variety of social contexts.

Coercive parent-child interaction and parent-controlled interactions may add to further aberrant behavior in children with ADHD. In contrast, parents are more likely to adjust their behavior if they are sensitive to the developmental changes in their children's abilities and preferences (Lamb, 1997). In addition, Lamb (1997) confirmed the prominence of play in the father-child interactions and reported that fathers initiated more physical and idiosyncratic types of play preferred by young children. Hence, father-child interactions in the context of play may foster communication and turn taking behavior.

Summary

Children with ADHD have an enormous impact on society in terms of financial expense, stress to families, and academic and vocational impairment (Biederman, 1998). Parent training has been empirically supported as a powerful tool for clinicians and researchers in the behavior management of children with ADHD. A major limitation in current research is the lack of father participation. Consequently, there is a dire need for empirically validated interventions for fathers and their child with ADHD. Our study uniquely characterizes the interactions of fathers and their young children with ADHD,

provides important contextual data, and empirically evaluates the effects of an in-home parent training intervention for fathers. Father-child interactions are examined and the separate components of the parent training intervention are evaluated. Our study provides valuable information for further development and/or refinement of the parent training intervention and is critical for the development of a comprehensive in-home, family-centered intervention for parents and their children with ADHD.

Table 2-1. Review of parent training literature (1983-2004)

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Anastopoulos, A.D., Shelton, T.L., DuPaul, G.J., & Guevremont, D.C. (1993)	To assess the effects of an PTP* designed for parents of school age ADHD children	Parent training model	36 ADHD children 6-11 years & mothers		Training resulted in decreased parenting stress, increased parenting self-esteem & improvements in the severity of child's ADHD	Further testing of model
Barkley, R.A., Shelton, T.L., Crosswait, C., Moorehouse, M., Fletcher, K., Barrett, S., Jenkins, & Metevia, L. (2000)	To compare the effects of different treatment programs on behavioral, social, emotional & academic outcomes	Behavioral parent training, classroom-based behavior modification, social skills training	158 preschool children with hyperactive, impulsive, & inattentive behavior	2x2 ANCOVA	Poor attendance of parents in parent training. Classroom treatment resulted in reduced behavioral problems $p < .006$ and social skill impairment	Further research on long-term outcome
Cooper, L., Wacker, D., Sasso, G., Reimers, T., & Donn, L. (1990)	To examine maintaining variables for children with conduct disorder	Parent interventions: demands & parent attention & ignoring	8 children with conduct disorders	Single subject, multielement design across rapidly changing conditions	Identified parental attention as a factor in maintaining appropriate child behavior. Direct assessment completed in an outpatient setting	Further application and extension of assessment procedures

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Elder, J.H. (1995)	To evaluate the effects of an in-home communication training program for parent of developmentally delayed children	Parent training model	4 mothers & 4 male children with delayed development, language impairments & autistic features	Single subject design, MB	Training resulted in improved parent-child interactions over 3 conditions ($p < .034$)	Further research on improving interactions using SSD, & using in-home PTP
Erhardt, D. & Baker, B. L. (1990)	To assess the effects of a PTP for children with ADHD	Parent training model	2 children & parents	Single subject design/AB	Training resulted in improvements in parents' confidence in behavioral management, decreased ratings of hyperactivity, and improved relationships	Further testing of model
Forehand, R.L., Steffe, M.A., Furey, W.M., & Walley, P.B. (1983)	To examine the long term effects of a PTP	Parent training model	68 mothers	Quasi-experimental	Training resulted in treatment gains perceived by mothers' post-study & at f/u	Further testing of model
Gross, D. Fogg, L. & Tucker, S. (1995)	To examine the effectiveness of a PT program for positive parent-child relationships	Parent training program	24 parents & 25 2-yr olds	Repeated measures ANOVA	Increase in parenting self-efficacy, decrease in parenting stress, & improvement in quality of parent-toddler interaction	Further testing of model

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Frankel, F. Myatt, R., Cantwell, D., & Feinberg, D. (1997)	To evaluate the effects of an outpatient PTP for social skills training	Parent training program	57 boys & 17 girls with ADHD &/or ODD	Comparison	Training resulted in improved functioning for children with and without ADHD as did children with ODD	Further testing of model
Henry, G. (1987)	To compare the effects of medication and modeling to a combined treatment package including medication	Medication, symbolic modeling, & combined package	6 children 4-10 years with hyperactivity	Single subject design, ABC case series	Reduction in latency to initiate compliance when time out introduced ($p < .04$)	Suggested clinical application of components of treatment package
Kazdin, A.E., Esveldt-Dawson, M.A., French, N.H., & Unis, A.S. (1987)	To evaluate the effects of PTP & PST** on antisocial behavior in children	Parent training model	Inpatient psychiatric children (40)	Comparison	Training resulted in decreased aggression & externalizing behavior at home, school and at 1 year follow up	Further testing of model

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Kazdin, A.E., Siegel, D.C., & Bass, D. (1992)	To evaluate the effects of problem-solving skills training and parent management training on children with severe antisocial behavior	Parent training model	97 children referred for psychiatric care	Quasi-experimental	Training resulted in improved child functioning across settings and parent functioning at post-treatment & at 1 year follow up	Further testing of model
Pisterman, S., McGrath, P., Firestone, P., Goodman, J., Webster, I., & Mallory, R. (1989)	To evaluate the efficacy of group PTP aimed at improving compliance of children with ADHD	Group parent training intervention	46 families with preschoolers with ADHD	Group comparison using series of MANOVA	Training resulted in significant treatment effects in experimental group. Child compliance & parent control variables ($p < .001$)	Further research on PTP effects on multiple behavior problems
Sonuga-Barke, E.J., Daley, D., Thompson, M., Laver-Bradbury, C., & Weeks, A. (2001)	To evaluate PTP for preschool children with ADHD		78 children	Comparison	PTP training resulted in reduced ADHD symptoms & increased maternal sense of well being	Further research of PTP

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Tucker, S., Gross, D., Fogg, L., Delaney, K., & Lapporte, R. (1998)	To examine the effects of a PTP at 1 year f/u	Parent training model	23 families & 24 children	Descriptive F/u from 1995 study	Training resulted in gains in maternal self-efficacy, maternal stress, & mother-child interactions maintained at 1 year	Further testing of model
Webster-Stratton, C. (1984)	To evaluate the short & long-term effects of a videotaped PTP	Parent training model	25 boys & 19 girls	Quasi-experimental	Training resulted in improvement in parent attitudes & child behaviors at 1 month & 1 year, reductions noncompliant & deviant behaviors	Further testing of model
Webster, Stratton, C. (1985)	To examine father responses to PTP	Parent training model	35 families		Training resulted in attitudinal improvements & perceptions of child behavior problems post-study & 1 year f/u	Further testing of model
Webster-Stratton, C. Hollinsworth, T. & Kolpacoff, M. (1989)	To evaluate the effects of initial study effects were maintained at 1 year	Parent training model	114 mothers & 80 fathers		Training resulted in improvements that were maintained 1 year	Further testing of model

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Webster-Stratton, C. (1994)	To explore if a videotape PTP with a PTP added to the effects of the PTP	Parent training model	85 families	Repeated measures MANOVA, ANOVAS x2	Training resulted in improvement in CBCL problem behavior (though still in the abnormal range) in short term range	Further testing of model
Webster-Stratton, C. (1998)	To examine the effects of a PTP	Parent training model	394 mothers	Quasi-experimental	Training resulted in a decrease in mothers' critical remarks & greater involvement in education, greater social skills in child, & decreased child behavior problems	Further testing of model
Webster-Stratton, C., Reid, M.J., & Hammond, M. (2001)	To examine the effects of a PTP & teacher training in Head Start children & mothers	Parent training model	272 mothers & children & 61 teachers	Quasi-experimental	Training resulted in decreased negative parenting & increased positive parenting, decreased behavior problems in children, & improved teacher skills	Further testing of model with cost-benefits

Table 2-1. Continued

Author/Date	Purpose	Major Concept	Sample	Design	Results	Implications
Weinberg, H.A. (1999)	To examine the effects of a PTP for ADHD children	Parent training model	34 parents of 25 ADHD children	Descriptive Design	Training resulted in improvement in parental knowledge of ADHD & child behavior management	Further testing of model
Williams, P.D., Elder, J. H., & Griggs, C. (1987)	To examine the effects of a behavioral training program for parents	Parent training model	Parents & 47 children		Training resulted in decreased internalizing scores-males > females & an change greater in 2-parent families	Further testing of model

*PTP – Parent training programs

**PSST - Problem-solving skills training

CHAPTER 3

METHOD

The purpose of this study was to characterize the interactions of fathers and their young children with ADHD; and evaluate the efficacy of an in-home training program designed for fathers. This chapter describes the research plan and the rationale for using of single subject design. Included in the research plan is specific information on the instruments used to describe subjects, dependent variables, and independent variables. In addition, a detailed description of the procedure and conditions of the parent training intervention is discussed.

Rationale for Use of Single Subject Design

Single subject design (SSD) is an important methodological tool often viewed as a radical departure from traditional research. The unique feature of SSD is the capacity to conduct experimental investigations with an individual, and rigorously evaluate the effects of an intervention (Kazdin, 1982). SSD allows for direct observation of specific behaviors of social significance, the effectiveness of a treatment, and the durability of a treatment. In addition, SSD methodology makes inferences about the intervention effects by comparing different conditions presented to the same subject over time. Empirical evidence that isolates and identifies the determinants of an individual's behavior adds to an understanding of an individual's interaction with the environment, supports generalization through replication, and assists in the development of novel, clinically efficacious, interventions (Kazdin, 1998).

Single subject design (SSD) has contributed to applied and experimental research as well as a variety of interventions in clinical research (Erhardt, & Baker, 1990; Elder, 1995; Hale, Hoepfner, DeWitt, Coury, Tiracco, & Trommer, 1998; Posavac, Sheridan, & Posavac, 1999). SSD facilitates experimental investigations with an individual and provides a rigorous evaluation of intervention effects. Threats to the internal validity are unlikely in SSD due to the inherent nature of the design (Kazdin, 1982). If the experiment is carefully designed and the results are attributed to the effects of the independent variable with little or no ambiguity; the likelihood that the independent variable accounts for the change in behavior is high and the study is considered internally valid. The role of chance is diminished with each replication of behavior.

Failure to determine this relation signals a lack of experimental control as well as failure to replicate (Johnston, & Pennypacker, 1980). Failure to demonstrate replication in all subjects leads to a more intensive investigation of the function of the behavior rather than attributing the findings to chance (Kazdin, 1998). External validity is primarily addressed in subsequent investigations that alter the conditions of the original study. If a study is considered externally valid, the results of an experiment are generalizable and extend beyond the condition of the experiment.

Single subject design methodology has many advantages for the proposed study. First, SSD facilitates close inspection of an individual interacting in the environment. Children with ADHD often present with a varied range of behaviors and impairments. Unexpected variables or outliers, specific to child behaviors and father behaviors provide useful information for intervention effects and/or refinement (Elder, 1997a). Second, modifications of an intervention are clearly defined and isolated, closely monitored, and

compared with each subject's own baseline data. Thus, researchers have the opportunity to incorporate new knowledge into the intervention without compromising the scientific integrity of the study (Elder, 1997a).

Third, behavior is a continuous process and changes over time as a function of the influence of its determining variables. SSD gives researchers the opportunity to take multiple "behavioral snapshots" over time that allow for quantitative and contextual, descriptions of targeted behaviors (Johnston, & Pennypacker, 1980, 1993). A final point is that graphic representation facilitates the communication of the data analysis and synthesis of the relationship between the dependent and the independent variables (Tawney, & Gast, 1989). The graphed displays are clinically useful when interacting with families because they clearly illustrate the frequency and effects of specific training components on the individual's behavior.

A single subject, AB design was used to assess the effects of the parent training intervention across on each father's acquisition of skills, father behavioral responses, and child behavioral responses across the training conditions. Each father-child dyad was used as his own control. The frequencies of the behavioral responses for the fathers and their children were measured concurrently and compared with baseline data. Visual analysis was the primary means for organizing and reporting the data analysis and synthesis. The inspection of specific components of the parent training intervention provided valuable information for further intervention development and/or refinement.

Research Plan

Recruitment of Subjects

Agreements were formed with Joseph Keeley, Wayne Soven, Colin Condron, and JoAnn Cook. Each practitioner referred families with young children diagnosed with

ADHD who were interested in this project. Joseph Keeley, MD is a behavioral pediatrician in private pediatric practice in Orlando, Florida. Wayne Soven, MD and Colin Condrón, MD are pediatricians in private practices in the Orlando area. Jo Ann Cook, ED is a school psychologist in private practice in Longwood, Florida. Each practitioner serves children and adolescents with behavioral disorders of all races and socioeconomic groups in three surrounding counties. The Principal Investigator (PI) contacted each family by phone, scheduled home visits (with interested fathers who met inclusion criteria), and discussed our study with interested parents. Fathers of children with ADHD (3- to 6-years of age) were chosen by purposive sampling and were invited to participate. A total of four fathers and their children chose to participate in our study.

Inclusion Criteria

Criteria for inclusion required that the children were 3- to 6-years of age without debilitating sensory or physical impairments, and had a diagnosis of ADHD from a behavioral pediatrician or a pediatrician according to DSM-IV (APA, 1994). Fathers and their children were considered for enrollment in this study if they met the inclusion criteria, gave assent to participate in the study, and had signed consent/assent. Fathers were defined as biological fathers who resided in the home with their child for at least one year. Each father agreed to be videotaped and to engage in the parent training process. Each father signed an additional videotape consent form for himself and his child.

Exclusion Criteria

A child was excluded from participation in the study if the child's medical history indicated physical impairments, sensory-impairments, or significant medical problems. A father was excluded from participation in the study if the father's medical history

indicated psychiatric illness or sensory problems (i.e., speech and language disorders, hearing loss) that might affect the father's ability to receive training and/or interact with their child.

Parent training sessions were conducted in the home by the PI. The advantages of naturalistic observation include well-maintained subject participation and essential contextual, in-depth data. Therefore, a room in each home was chosen for videotaping that; minimized distractions; supported uninterrupted interactions; allowed the observer to unobtrusively record data; and remained constant throughout the investigation.

Instruments for Describing Subjects

Four instruments (Table 3-1) were used to describe the participants in this study; the Hollingshead Four Factor Index (1975); the Child Behavior Checklist (Achenbach, & Edelbrock, 1983); the Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993); and the Interaction Questionnaire (Hoza, & Pelham, 1995). This descriptive information was critical for determining the generalizability of findings to other fathers and their children with ADHD, for replicating the research, and for designing future interventions.

Hollingshead Four Factor Index (1975) was used to assess socioeconomic factors (Appendix E). This instrument is a widely used measure in research of children and families, and provides information relevant to the study population (Bussing, Zima, & Belin, 1998; Saxon, & Reilly, 1998). The Four Factor Index is based on the concept that social status is a multidimensional construct. Socioeconomic status is estimated based on an individual's occupation, education, gender, and marital status.

The Child Behavior Checklist (CBCL) (Achenbach, & Edelbrock, 1983) was used to assess the father's perceptions of the child's behavior problems before participation and at completion of the study (Appendix F). The CBCL consists of 118-items

associated with behavior problems. The items constitute multiple scales for two broad-band groupings (externalizing and internalizing behavior) in all sex and age groups. T-scores are computed for seven dimensions of child psychopathology (emotionally/reactive, anxious/depressed, somatic complaints, withdrawn, sleep problems, attention problems, and aggressive behavior) and five syndromes (affective problems, anxiety problems, pervasive developmental problems, ADHD problems, and oppositional defiant problems). The intraclass correlations are .98 for interparent agreement and .84 for test-retest reliability (Achenbach, 1991, 1992).

The Parenting Scale (PS) (Arnold, O'Leary, Wolff, & Acker, 1993) was used to measure father effectiveness in child discipline before participation and at completion of the study (Appendix C). This instrument is a self-report consisting of 30-items that represent a parent mistake as the anchor at one end of a 7-point scale with an effective solution as the opposing anchor. The PS was scored in terms of three subscales (laxness, overreactivity, and verbosity) and a total score. Higher scores indicate ineffective or dysfunctional parental discipline. Arnold et al. (1993) reported an internal consistency estimate of .84 for the total score, and 2-week test-retest reliability of .84. Hoza et al. (2000) reported an internal consistency of .86 in mothers and .83 in fathers.

The Interactions Questionnaire (INTX) (Hoza, & Pelham, 1995) was given to fathers before and at completion of the study, to assess the fathers' beliefs about their children's noncompliance in hypothetical interactions (Appendix D). This questionnaire consists of 60-items and builds upon previous research (Sobol, Ashbourne, Earn, & Cunningham, 1989; Bugental, & Sherron, 1983). Fathers were asked to rate each of ten reasons for their child's noncompliance from 1 (really true) to 10 (not really at all). Hoza

et al. (2000) analyzed only subscales that assessed beliefs about problem behaviors related to the child's lack of effort and bad mood. Each subscale was scored across three scenarios. Higher scores indicated less endorsement of insufficient effort or bad mood as a reason for noncompliance. The internal consistency for the child's lack of effort subscale was .87 for mothers and .88 for fathers and the child's bad mood subscale was .85 for mothers and .86 for fathers. The INTX is a new instrument (not fully validated) and test-retest reliability has not been examined. Therefore, findings must be interpreted with caution.

Description of an In-Home Parent Training Intervention for Fathers

The current research builds on Elder's (1995) parent training intervention by focusing on a new population. Behavioral strategies and discipline skills specific to the Parent-Child Interaction Therapy (Eyberg, 1988) in the context of father-child play were incorporated into our parent training intervention (Appendix B). The PI provided the necessary equipment (e.g., video camera, videotapes, and toys) for use during videotaping of the father-child play sessions. Baseline father-child play sessions were videotaped before parent training. The PI provided three parent training sessions for each father (Table 3-2) in the participant's home over a period of 8- to 12-weeks. Each in-home training session lasted approximately 1- to 2-hours. Each father received:

- Written instructions for the targeted skills.
- Videotaped instruction including examples of the behavior to be taught.
- Role-modeling demonstrations.
- Opportunity for practicing the parenting strategies and skills with the PI.

Parent Training Session 1 (PT-1) was taught to fathers after 4- to 5-videotaped father-child play sessions. The parenting strategies for PT-1 included imitation with animation skill (I/A); following the child's lead in play; increasing positive responses;

and decreasing corrective statements. Fathers were asked play with their children 5-times each week and to use the parent strategies taught during PT-1.

Parent Training Session 2 (PT-2) began after 4- to 5-videotaped father-child play sessions that followed PT-1. The fathers were taught skills that involved discipline strategies in the same manner that was described in PT-1. The fathers were asked to continue the father and child play sessions 5-times each week and to use the skills taught during PT-1 and PT-2.

Parent Training Session 3 (PT-3) began after 4- to 5-videotaped father-child play sessions that followed the PT-2. The fathers received a review of PT-1 and PT-2 in the same manner that was described in PT-1. The fathers were asked to continue the father-child play sessions 5-times each week, and to use the skills taught during PT-1 and PT-2. A follow-up meeting was scheduled between the PI and the father for a review of the results that pertained to their father-child interaction.

Procedure for Implementing the Parent Training Intervention

After the fathers gave informed consents and child assents, they were asked to complete four questionnaires (Table 3-1). The timeline (Table 3-3) and the procedure (Table 3-4) for instrumentation and videotaping in the home were followed. The PI videotaped the father-child play sessions in the home (twice each week) at similar times of the day convenient for fathers and their families.

Condition A – Baseline

The PI videotaped the baseline father-child play sessions in the home (twice each week) for approximately two weeks or until a stable baseline was noted (Table 3-2). The baseline videotaped sessions consisted of a 15-minute unstructured, in-home, father-child

play session. The PI asked the fathers five questions after every other videotaped father-child play session. The PI recorded the behavioral responses concurrently. Data collection and analysis were ongoing.

Condition B – Introduction of Parent Training Sessions 1, 2, and 3

The first parent training session followed the completion of the baseline sessions (Table 3-2). Approximately 4- to 5-father-child play sessions were videotaped for 15-minutes (twice each week) for approximately two weeks following each of three parent training sessions for fathers. The PI asked the father five questions after every other videotaped father-child play session. The PI recorded the targeted behaviors of fathers and their children concurrently. Data collection and analysis was ongoing. At completion of the final father-child play session, the fathers were asked to complete questionnaires. A follow up meeting with parents was scheduled after completion of the study to discuss the results of their participation, to offer the complete set of videotaped father-child play sessions, and to offer a compact disc with the parent training intervention. In addition, mothers were offered instruction pertaining to the parent training intervention.

Instruments and Procedure for Measuring the Dependent Variables

The PS, INTX, and CBCL were used to measure the dependent variables (Table 3-5). Dependent variables were operationalized (Appendix A). Social validity was evaluated by a series of questions adapted from Elder's (1995) semi-structured interview to assess the father's perceptions of the parent training process (Appendix H). . The fathers were asked after every other father-child play session to report perceptions on the training process on a scale of 1 (positive) to 5 (negative).

- How typical was your child's behavior during this session?

- How comfortable are you using the skills you have been taught?
- Do you think that the training that you are doing with your child is working?
- Are you using what you have learned at times other than the videotaped session?
- Do you think that the presence of the camera and/or investigator affected how you or your child behaved in this session?

The Therapy Attitude Inventory (Eyberg, 1993) is a brief consumer satisfaction measure of parent training and family therapy used to assess father satisfaction with the process and outcome of parent training at completion of the study (Appendix G). A total of 10-items are included that address the impact of therapy on parenting strategies and the child's behavior. The father's were asked to rate the items on a scale from 5 (dissatisfaction with treatment or a worsening of problems) to 1 (maximum satisfaction with treatment or improvement of problems) at completion of the study. The item ratings yield a possible score of 5.

In-Home Observation

The PI conducted in-home parent training sessions for fathers at convenient locations (e.g., living room, family room, or kitchen). The procedure for videotaping the father-child play sessions was discussed with the father before the study. The PI arrived at the participants' homes with the videotaping equipment and toys at a time previously scheduled by the fathers. If the child was ill or unwilling to participate, the session was rescheduled. Behavioral responses were coded during the 3- to 12-minute segment of the videotaped father-child play session. The last 3 minutes were used for coding the behavioral response categories in the event of a problem with videotaping (i.e., disruption, mechanical problems). The PI viewed the videotapes and recorded the frequencies of the targeted father behaviors and the targeted child behaviors.

Each data file was assigned an identification number to maintain the confidentiality and anonymity of the subjects. Only the subject's identification number appeared on the data collection instruments. The files and videotapes were stored in a locked cabinet in the PI's office and will be maintained for 3-years. All files and videotapes will be destroyed after that time.

The Multiple Option Observation System Experimental Studies Software (M.O.O.S.E.S.) provided a method for coding and analyzing the observational data (Tapp, Wheyby, & Ellis, 1995). The data were entered in a laptop computer, labeled, organized, and stored. M.O.O.S.E.S. allowed the identification of antecedent and consequent events associated with specific behaviors as well as more general response categories. This information is available to plan intervention and data collection procedures for future research.

Behavioral Observer Training

The PI created the videotapes used for training an independent observer. The independent observer was blind to the conditions under which the videotapes were taken. The PI followed the observer training sequence developed by Elder (1995):

- Instruction to familiarize observers with the behavioral response categories as defined in the coding manual.
- Practice coding the videotapes of role-played interactions that clearly portray the imitation with animation skill.
- Practice coding pre-existing parent child videotapes not associated with the current project.

The independent observer randomly selected and coded 25% of videotaped sessions previously coded by the PI to minimize the potential for bias and observe for observer drift during the course of our study. The independent observer and PI were

required to establish a criteria level of 80% or greater interrater agreement. Practice sessions continued until the criteria level was met. Interrater agreement fell below 80% on two occasions during this study (Table 4-15). The operational definitions (Appendix A) were reviewed and clarified. The PI and the independent observer practiced coding behavioral responses until a criterion of 80% was met. Coding was re-instituted.

Behavioral Response Categories

Behavioral response categories from Elder's (1995) research were extended for use in our study. Behavioral response categories of targeted behaviors (Table 3-5) for fathers and for children addressed the research questions in our study (Appendix A). The father's behavioral response categories included initiating behaviors, responding behaviors (positive responses, corrective responses, and negative responses), initiated turns with affirmation, and the imitation with animation skill. The child's behavioral response categories included initiating behavior, responses, tantrum/aggression, elopement, and initiated turns with affirmation.

Table 3-1. Correspondence between instrumentation and sample characteristics

Measure	Instrumentation	Purpose
Hollingshead Four Factor Index (1975)	Father report	Define the individual's social position
Child Behavior Check List (1983)	Father report	To assess father's perceptions of the child's behavior problems
Parenting Scale (1993)	Father report	To evaluate father effectiveness in discipline
The Interactions Questionnaire (1995)	Father report	To evaluate father attributions of compliance and noncompliance

Table 3-2. In-home parent training intervention for fathers

Condition	Intervention for Father	Father-Child Play Sessions
A	Baseline	Minimum of 3 videotaped sessions, Approximately 3-5 until stable baseline
B	Parent Training Session 1	4-5 videotaped sessions
B	Parent Training Session 2	4-5 videotaped sessions
B	Parent Training Session 3	4-5 videotaped sessions
Follow-up	Review of study results	

Table 3-3. Timeline for the parent training intervention

Parameters	Initial Visit	Week 1-2	Week 3-4	Week 5-6	Week 7-8	Week 9-10	Week 11-12
Informed Consent	X						
Baseline Questionnaires: SES, CBCL, PS, INTX	X						
Semi-structured interview after every other videotaping of father-child play session		X	X	X	X	X	
Follow-up Questionnaires: CBCL, PS, INTX, TAI							X
Parent training session 1			X				
Parent training session 2				X			
Parent training session 3					X		
Condition A		X					
Baseline sessions (3-4)							
Condition B							
Follows the baseline sessions			X	X	X	X	
Completion of Study						X	X

Table 3-4. Procedure for instrumentation and videotaping

Condition	Session	Questionnaire
Prior to Baseline	In-home meeting with father & PI Discussion of project	Informed Consent/Assent Hollingshead Four Factor Index Child Behavior Checklist Parenting Scale Interactions Questionnaire
Condition A	Unstructured father-child play Videotaping of 4-5 sessions	Interview of 5 questions after every other videotaping session
Condition B	4-5 father-child play sessions were videotaped after each parent training session (1,2,3)	Interview of 5 questions after every other videotaping session
Project Completion	Last videotaped father-child play session	Child Behavior Checklist Parenting Scale Interactions Questionnaire Therapy Attitude Questionnaire
Follow-up	In-home meeting with parents & PI	Present parents with videotapes of father-child play sessions.

Table 3-5. Correspondence among the variables, instruments, and measurements

Variable	Instrument	Measurement	Type of Data
Father behavioral response categories: Father initiations, Father positive responses, Father corrective responses, Father negative responses Child behavioral response categories Child initiations, Child responses, Child aggression, Child elopement	M.O.O.S.E.S. Computerized observation Program	Frequency counts	Quantitative Measure
Parent training skill: imitating/animating	M.O.O.S.E.S.	Frequency counts	Quantitative measure
Father perceptions of the training process of the in-home parent training intervention for fathers	Semi-structured interview	Father self-report	Qualitative measure.
Father satisfaction with the process and outcome of the in-home parent training intervention for fathers	Therapy Attitude Inventory (1993)	Father self-report	Quantitative measure

CHAPTER 4

RESULTS

A general description for each father-child dyad during the conditions of our study is given in this chapter. In addition, each subject's performance across the two conditions will be discussed (individually and later, as a group). Behavioral responses for fathers (father initiations, father positive responses, father corrective responses, imitation with animation, and father-initiated turns with affirmation) and children (child initiations, child responses, child aggression, child elopement, and child-initiated turns with affirmation) are discussed, displayed, and analyzed visually in Tables 4-1 to 4-17 and Figures 4-1 to 4-24. This information is critical for determining generalizability of findings to other fathers and their children with ADHD, replicating the study, and designing future interventions.

Father and Child Dyad A

Using Hollingshead criteria (1975) the family was estimated within the highest social strata (Table 4-13). Parents were in their early forties, Caucasian, employed full-time, and the biological parents of Child A. Two older children (16-year old son and a 20-year old daughter) were the biological children of the mother from a previous marriage. For the purpose of this discussion a fictitious name was assigned to Child A (Jordan).

Jordan was 3-years and 7-months at the onset of the study. He received a diagnosis of ADHD and speech and language delay at 3-years and 6-months from a behavioral pediatrician. Jordan was prescribed therapy for speech and language delays.

Father A refused to consider ADHD medication for Jordan before and during the study. The parents discussed concerns about Jordan's aggressive and hyperactive behavior. Jordan had been asked to leave two previous daycare programs because of problem behavior. At the time of our study, Jordan was attending a daycare program located near the mother's workplace. A daycare evaluation revealed that Jordan had academic delays, hyperactive, aggressive, and impulsive behavior. In addition, he was evaluated for placement in the county public school early intervention program. Jordan qualified for the "varying exceptionalities" program. However, the parents chose not to enroll Jordan because of inconvenience associated with location and extended daycare issues. Jordan was also evaluated by a for-profit agency for ADHD treatment. The parents were informed that the agency could provide behavior modification treatment for Jordan including occupational therapy that would cure ADHD. The parents chose not to enroll Jordan in additional therapy during our study.

The father's discipline skills (Table 4-1) were assessed before and at completion of our study using the PS (Arnold et al. 1993). Father A reported greater than average scores in laxness, overreactivity, verbosity, and total score; minimal changes in scores were noted before and after our study. Laxness associated with permissive parenting, overreactivity associated with authoritarian parenting, and father verbosity may seem to be inconsistent parenting styles. However, Father A exhibited behaviors that supported the differing styles during the videotaped father-child play sessions. For example, the father was observed to encourage rough play on occasion and admonish such behavior on other occasions. Several times the father was observed restraining Jordan in his arms and presenting a new activity. If Jordan participated in the activity, the father frequently

changed quickly to another activity. If Jordan was distracted or chose to play with a new toy, the father corrected Jordan or tried to pull him back to the previous activity. On one occasion, the father offered a block to Jordan. Jordan responded that the block did not fit. The father praised Jordan. A short time later Jordan gave his father the same block. The father dismissed Jordan and stated, "You know that block doesn't fit." Jordan immediately stopped participating and moved to another activity.

The father was verbose during each videotaped session and often asked the same question 3- or 4-times without waiting for Jordan to respond. Many times the father would introduce an activity. If Jordan began the activity the father often ceased the activity. For example, the father mentioned the game "duck, duck, goose". Jordan immediately started to play the game. The father responded that they could not play the game at that time. The father allowed rough, physical play in one session and threatened "time out" as punishment for similar behavior in another session. In summary, the father demonstrated inconsistent parenting styles. At times he was permissive, while other times he threatened "time out" if Jordan's behavior did not improve. Intentional aggressive, angry, or insulting father behavior was not observed.

The father often discussed concerns about Jordan's frequent episodes of aggression, temper outbursts, and defiance in the home, daycare, and during family outings. The father stated that it was difficult to provide consequences because he believed that Jordan was not affected by verbal explanations or the loss of privileges, and that Jordan did not participate when punished with "time out". The father stated that effective punishment included placing Jordan in his room and holding the door shut. The father reported that often the mother interfered with his management of Jordan's problem

behavior and led to frustration and conflict with his wife's behavior. The father asked if the mother could participate in parent training because she was the primary caretaker, and the marked differences in their parenting styles reinforced Jordan's problem behavior and created marital discord. The PI agreed to provide parent training for the mother after the father-child protocol had been completed.

The Child Behavior Checklist (Achenbach, & Edelbrock, 1983) was used to assess the child's behavior problems (Table 4-1). The father reported an internalizing T-score before and at completion of the study that was within the normal range of problem behavior. However, an externalizing T-score of 74 before and 65 at completion of our study was reported in the clinical range of problem behavior, and supported the diagnosis of an externalizing disorder for ADHD. At completion of our study, the father reported that ADHD problem behaviors decreased from the clinical range to the normal range of behavior. In contrast, oppositional defiant behaviors were reported to increase from the borderline to the clinical range of problem behavior. Interestingly, the father reported attention problems decreased from the clinical range to the borderline range while aggressive behavior increased from the normal range to the clinical range. Affective problems were reported to decrease from the borderline clinical range to the normal range. The father reported that Jordan had significant sleep problems (e.g., did not want to sleep alone; had trouble falling asleep; had nightmares; resisted bedtime; slept little; talked in his sleep; and woke often). The father stated that Jordan slept in his room only if one parent stayed with him the entire night.

The Interactions Questionnaire (Hoza, & Pelham, 1995) was used to assess the father's beliefs about Jordan's problem behavior before and at completion of our study.

The father reported that Jordan's problem behavior was attributed to the lack of father effort and poor mood of the father and Jordan. Before parent training, the father stated that the cause of Jordan's problem behavior was a mystery. The father's reported that his attempts to discipline Jordan's problem behavior were often ineffective. After the third parent training session, the father reported that his discipline skills (i.e., limit-setting, ignoring misbehavior, and time out) were improving. In addition, the father stated that teacher reports of aggression were less frequent, and Jordan's vocabulary had significantly increased since the onset of the study. The father stated that communication with his child had improved, that Jordan was less frustrated, and that Jordan exhibited fewer tantrums at home. However, the father reported that Jordan's problem behavior with his mother had not improved and the father's efforts to manage Jordan's problem behaviors often were thwarted by his wife's interference.

Frequencies of Target Behavior

During Condition A, the father and Jordan participated in four baseline father-child play sessions (Table 4-3). The PI videotaped two sessions per week in the father's home. During baseline sessions, the ratio of means for father initiations to child initiations was approximately 2:1; father initiations were greater than .66 of the total initiations. The father had few positive responses with an average rate of 15 corrective statements per session. The father did not respond negatively. There were no incidents of imitation with animation (I/A). Jordan did not exhibit any incidents of aggression or elopement. The ratio of father-initiated turns with affirmation (FIT) to child-initiated turns with affirmation (CIT) was approximately 4:1, greater than .80 of the total initiated turns with affirmation.

Condition B followed the videotaped baseline sessions. The father was taught the first parent training session (PT-1) and four father-child play sessions were videotaped (twice per week). Contrary to Condition A, the ratio of means for child initiations to father initiations was 1:1; and the child initiations were slightly greater than .50 of the total initiations. The father's positive responses doubled and increased to an average rate of 12.5 per session. The father's corrective statements significantly decreased to an average rate of .7 per session. The father's use of I/A increased to an average rate of 10 per session. The father did not make any negative comments. Jordan exhibited few incidents of aggression with an average rate of 4.5 per session. There were no incidents of elopement. The relationship of child responses to I/A was not evident. The ratio of means for FIT to CIT was 1:1. The CIT were slightly greater than .50 of the total initiated turns with affirmation.

The second parent training session (PT-2) followed and four father-child play sessions were videotaped. Similar to PT-1, the ratio means for child initiations to father initiations were 1:1. The child initiations were greater than .50 of the total initiations. The father's positive responses decreased to approximately the same rate as baseline, with an average rate of 6.5 per session. The father's corrective statements increased to an average rate of 5.3 per session. Incidents of Jordan's aggression increased slightly to an average rate of 5.8 per session. The father used I/A less than in PT-1 with an average rate of 8.5 per session. The father did not use negative comments. Jordan did not elope at any time. Similar to PT-1, the ratio of means for FIT to CIT was 1:1; CIT slightly more than .50 of the total initiated turns with affirmation.

Unfortunately, the child was ill for a week and the winter holidays prevented scheduling for approximately two weeks. The third parent training session (PT-3) was given and a booster session followed one week later to review information before videotaping the father-child play sessions. Comparable to PT-1 and PT-2, the ratio of means for child initiations to father initiations was approximately 1:1. The child initiations were slightly greater than .50 of the total initiations. The father's positive responses increased to an average rate of 10.5, approximately twice the baseline rate. Corrective statements decreased slightly to an average rate of 4 per session. The father did not use negative comments. The father used I/A an average rate of 4.8, less than .50 of the average rate in PT-1. The child exhibited few incidents of aggression with an average rate of 2.2 per session. Jordan did not elope at any time. Similar to PT-1 and PT-2, the ratio of means for FIT to CIT remained at 1:1. The CIT were greater than .50 of the total initiated turns with affirmation.

Visual Report of Data

The decrease in father initiations and increase in child initiations between Condition A and Condition B is evident in Figure 4-1. During the third baseline session Jordan initiated play more often than in the other three baseline sessions. This father-child play session was more typical of the sessions that followed the parent training sessions. Jordan and his father played with blocks, shapes, and puzzles. Jordan responded to the father's initiations and placed a block on a tower when handed a block, put a shape in the block when handed a shape, and inserted a puzzle piece when handed a piece. It appeared that child initiating behavior was dependant on the type of father-child play.

During the first videotaped session after PT-1, the father did not structure or lead the play as he had during the baseline sessions. Jordan reacted by standing or singing; running to and from the father; falling into the father; and rough, physical play. The father expressed concern about Jordan's aggressive behavior following the play session. The PI advised the father to continue to allow Jordan to lead the activity. Subsequent videotaped sessions showed that the father continued to allow the child to lead play. Fewer instances of rough play were noted during the remainder of our study.

Interestingly, Jordan verbalized choices of play, demonstrated creative play, and initiated play more often than during the baseline sessions. If the father participated in Jordan's activity, the activity continued. If the father led his child's activity, Jordan became frustrated, stopped the activity, and chose another activity. For example, Jordan played with the dog giving it sound and movement. The father took the dog from Jordan and positioned the dog to box the ears. He explained to Jordan how to position the dog. Jordan's yelled and cried; took the dog from the father; tossed the dog; and ran to the chair with another toy. It was evident that the father's response affected the father-child interaction. It is possible that the targeted behaviors (father initiations, child initiations, and FIT and CIT) are dependent on the father's responding behavior as well as the type of father-child play.

Father positive responses and corrective statements changed between Condition A and Condition B (Figure 4-2). After PT-2, the father's positive responses decreased and father corrective statements increased. In addition, there was a decrease in the mean of father initiations and child initiations during videotaped sessions IB#1 through IB#4. After PT-3, the father positive responses increased and the father's corrective responses

remained fairly stable. Initially, the father expressed difficulty and discomfort with I/A during parent training. However, the father was observed using I/A (Figure 4-3). After the second videotaping session IB#2, a dramatic decrease in the father's use of I/A was evident. Despite a review of I/A, the father was less inclined to use the skill for the remainder of the study. In addition, the child responses remained relatively stable after the parent training sessions with a average range of 34 to 41 (Table 4-4). There was no evidence of a relationship between the child responses and the father's use of I/A. Interestingly, the child responses remained relatively stable despite a significant decrease in the father initiations. Further study is needed to determine the influence of father behavior on child responses.

Significant changes were evident between Condition A and Condition B in FIT and CIT (Figure 4-5). CIT increased and were more balanced with FIT throughout Condition B. The increase in CIT and the balanced turn taking between the father and the child supports the effectiveness of the first parent training component.

Father and Child Dyad B

Using Hollingshead (1975) criteria, the family was estimated to fall in the middle range of social strata (Table 4-13). The parents were in their mid-thirties, Caucasian, worked full-time, and the biological parents of a 3-year and 6-months-old son. The father shared that he quit school in the seventh grade due to academic problems and failure, difficulty reading, and lack of interest. He stated that he has worked in construction since adolescence. The father expressed concern that his son may experience similar academic difficulties in school.

For the purpose of discussion Child B was referred to as Thomas. Thomas received a diagnosis of ADHD at 3-years and 6-months of age from a behavioral

pediatrician. Thomas was diagnosed with speech and language delays and received therapy twice per week. The father did not believe that medication was an option and Thomas did not receive medication for ADHD during our study. Thomas was asked to leave three previous daycare programs because of aggressive and hyperactive behavior. In addition, Thomas was asked not to return to a church daycare program on Sunday mornings. Throughout the study he attended a preschool program five days each week. The teacher sent daily reports of aggressive and impulsive behavior to the parents.

Before the study, the father reported greater than average scores in laxness, overreactivity, verbosity, and total score (Table 4-4). At completion of our study, the father reported changes in the total score, laxness, and verbosity and no change in overreactivity. Only the verbosity score was in the normal range of discipline effectiveness. Thomas did not exhibit incidents of aggression during the videotaped play sessions. The father did not respond with negative or corrective statements after the baseline sessions. Following the baseline sessions, the father spoke less often, gave fewer explanations, and allowed the Thomas to lead the activity. There was no evidence of overreactivity by the father was observed during the videotaped father-child play sessions.

Before and at completion of our study, the father reported that his wife was the disciplinarian and that she structured and planned Thomas's activities, bedtime, and punishment. The father stated that he did not provide consistent consequences in response to Thomas's problem behavior and that Thomas was less likely to comply with his requests or commands. The father expressed support for his wife's strict disciplinary practices. If Thomas misbehaved or did not comply, the wife provided verbal reprimands

and immediate consequences such as the loss of privileges. For example, Thomas enjoyed playing with trains. The consequences for problem behavior or negative teacher reports often included the removal of trains for a period of time. Token reinforcements for good behavior were granted. For example, Thomas was promised a ride on a train if he received only positive teacher reports for the entire week. The father stated that despite the parent's efforts with strict discipline, the child's aggressive behavior had not changed before our study. The father asked if the mother could participate in parent training since she was the primary caretaker and the marked variation in their parenting styles was reinforcing his child's problem behavior. The PI agreed to provide parent training for the mother after the research protocol had been completed.

The father reported on the CBCL (Achenbach, & Edelbrock, 1983) an internalizing T-score of 62 before and 61 at completion of the study. Both t-scores remained in the borderline clinical range for problem behavior (Table 4-4). An externalizing T-score reported a change of 65 in the clinical range to 59 (within the normal range of problem behavior). A total score of 46 decreased to 43 and remained in the normal range.

Thomas was reported to be in the borderline clinical range for ADHD, withdrawn, and aggressive behavior before our study. At completion of our study, the scores were reported within the normal range of problem behavior. There was a minimal decrease in pervasive developmental problems, but the score remained in the clinical range. The father reported that Thomas avoided eye contact; did not answer; had poor peer relationships; had speech problems; and was disturbed by new things or a change in routine. In addition, the father reported a normal range of problem behavior associated

with sleep. However, the father discussed his child's problems falling asleep, resisting bedtime, and not wanting to sleep alone. The father reported that sleep problems had improved slightly before our study because both parents had been working together to assist the child at bedtime with a strict schedule. It was also noteworthy that the father reported that Thomas was more affectionate at the completion of the study. In addition, the father believed that his child's noncompliance was influenced by a lack of father and child effort, and poor father and child mood (Table 4.4).

Frequencies of Target Behaviors

Thomas and his father played during four baseline sessions (twice each week) videotaped by the PI in the subjects' home. The ratio of father initiations to child initiations was approximately 2:1, with father initiations greater than .66 of the total initiations (Table 4-6). The father had few positive responses. The father's corrective statements were greater than twice the average rate of positive responses. The father did not make any negative comments or use I/A. Thomas did not exhibit incidents of aggression or elopement. The ratio of means between FIT and CIT was approximately 3:1; FIT greater than .66 of the total initiated turns with affirmation.

After Condition A, the father received the first parent training session (PT-1). Four father-child play sessions were videotaped (twice during each week). In comparison to Condition A, there was a significant decrease in the father initiations and increase in child initiations. The ratio of father initiations to child initiations changed to 2:3, with child initiations greater than .50 of the total initiations. The father's positive responses increased almost three times the baseline rate with an average rate of 8.8 per session. There were no corrective statements or negative comments made by the father. The father used I/A an average rate of 10.2 per session. Thomas did not exhibit any

incidents of aggression and elopement. Another significant change was noted in the ratio of means of FIT to CIT was approximately 1:2; CIT greater than .66 of the total initiated turns with affirmation.

The father was taught the second parent training session (PT-2) and five father - child play sessions were videotaped (twice during each week). Similar to PT-1, the ratio of father initiations to child initiations was approximately 1:2, with child initiations greater than .66 of the total initiations. The father's positive responses increased slightly to an average rate of 10.2, three times the rate of baseline. The father did not exhibit any corrective or negative statements. The father continued to use I/A with an average rate of 11.8 per session. However, the father stated that he was uncomfortable with the use of I/A. It was noted during the fourth videotaping session that the use of I/A had dropped from 15 incidents to 6 per session. For that reason a fifth videotaping session was arranged. There was not any notable improvement in the use of I/A in the fifth videotaped father-child play session. The child did not exhibit any incidents of aggression or elopement. Similar to PT-1, the ratio of means of FIT to CIT was approximately 2:3; CIT almost .66 of the total initiated turns with affirmation.

After the fifth videotaped father-child play session, the father was taught the third parent training session (PT-3). Four father-child play sessions were videotaped. Similar to PT-1 and PT-2, the ratio of father initiations to child initiations was 1:2, with the child initiations almost .66 of the total initiations. The father's positive responses increased to five times that of baseline and an average rate of 15 per session. The father did not correct or provide negative comments. The father continued to use I/A more often with an average rate of 20, twice the rate reported following PT-1. Thomas did not exhibit any

incidents of aggression or elopement. The ratio of means of FIT to CIT was approximately 2:3; CIT greater than .50 of the total initiated turns with affirmation.

Visual Report of Data

A change in level with minimal variability is evident in father initiations and child initiations between Condition A and Condition B (Figure 4-6). The father initiations decreased and Thomas initiated play more often. Thomas demonstrated creative and imaginative play. For example, Thomas often led the path of a train in various directions using the fireplace, the father's legs, or blocks while whistling, singing, or saying "choo choo" in Condition B. The type of father-child play seemed to influence the child initiations. However, the father-child play session following the PT-3 was quite different. Thomas attended a monster truck show two days before and was imitating the monster trucks. Despite the father's attempts to interact, the child played in isolation with the monster trucks for several minutes.

An increase in the father's positive responses is evident between Condition A and Condition B (Figure 4-7). The father's corrective statements changed considerably with only two incidents evident in IB#4. Imitation with animation (I/A) was taught to the father during the first parent training session (Figure 4.8). The father expressed difficulty with instructions to act silly and animated. The PI provided ongoing review and encouragement of I/A throughout Condition B. There was an increase in I/A between Condition A and Condition B. Conversely, the child responses decreased. Before session IC#1, the father and Thomas attended a monster truck show. Thomas played in isolation with the monster truck toys during father-child play sessions IC#1 and IC#2. The father used I/A more often in an attempt to interact with Thomas. Despite the father's attempts to interact, Thomas responded less often. The father initiations between

Condition A and Condition B (Figure 4-9) decreased while the child responses remained relatively stable with the exception of sessions IB#2 and IC#4. Further study is needed to determine the influence of father behavior on child responding behavior.

The father spoke often and did not wait for Thomas to respond during Condition A. After the first parent training session, the father followed his child's lead in play; waited for Thomas to respond; initiated a turn less often; and increased his use of I/A. CIT increased and were more balanced with FIT in Condition B (Figure 4-10). Also noteworthy, CIT increased during second father-child play session following each parent training session, and then decreased after each subsequent father-child play session. One reason may be that the father's use of I/A was higher in the first and second father-child play session following each parent training session. In addition, the father's positive responses were highest in the second father-child play session following the parent training sessions. The interesting point is that both CIT and FIT were more balanced after the third parent training session. The father did not sit back and watch or play in isolation, while Thomas played intensely with a train or truck. The father built a tower of blocks, and Thomas used the truck to knock over the tower or the father moved his truck on the child's arm until the child giggled. In other words, the father continued to interact with his child. Further study is needed to understand the relationship between I/A and the child's behavior.

Father and Child Dyad C

Using Hollingshead (1975) criteria the family was estimated to fall in the lower range of social strata (Table 4-13). The family consisted of an African-American father, a Caucasian mother in their late thirties, and their biological 5-year and 8-month child. For the purpose of discussion, the Child C was referred to as James. The father had a 14-

year-old African-American teenage son from a previous marriage who visited occasionally, but did not live in the home. The father was self-employed and contracted his services as a handyman for home and business repairs. The mother completed junior high school and was employed full-time. The father stated that he had a history of drug and alcohol abuse and that he was drug and alcohol free for seven years. He reported that he was an active member of Alcoholics Anonymous and Narcotics Anonymous. The father stated that he was incarcerated several times. In addition, the father reported that his wife was incarcerated prior to their marriage. He also expressed concern about past issues of maternal child neglect.

James received a diagnosis of ADHD at 5-years and 8-months of age from a behavioral pediatrician. James was not prescribed medication for ADHD. The father was opposed to any type of medication and likened the use of stimulants for the treatment of ADHD to drug abuse. Before attending kindergarten, James was asked to leave three daycare programs due to aggressive behavior. James attended kindergarten at the local public elementary school. The parents expressed concern about daily teacher reports of aggressive and impulsive behavior. James was referred for an ADHD evaluation with a health care provider by his teacher. Initial academic testing within the school reported that James had a second grade reading level and above average academic skills. In addition, James was referred for psycho-educational testing and future consideration for admission into the gifted program.

Before our study, the father reported ineffective discipline evidenced by greater than average scores in laxness, overreactivity, and the total score (Table 4-7). The father stated during the parent training sessions that both parents disciplined James. However,

the father did not believe his wife supported his method for discipline. He reported that she lacked consistency in discipline and did not provide consequences for problem behavior exhibited by James. The father discussed his wife's lifestyle and his concern with issues of maternal neglect. The father advised that the inclusion of his wife in the research project was essential to strengthen family ties and to provide a unified approach to James' problem behavior. The father was advised that parent training would be offered to his wife at completion of our study.

The father had a powerful voice and stance. James immediately acknowledged the father's request or command. James did not exhibit any incidents of problem behavior, opposition, or aggression throughout the study. The father spoke frequently and gave lengthy explanations concerning play, a specific toy, or buildings. Often, the father did not respond to the child's questions or comments. James demonstrated strong verbal and language skills during interactions with the father. James provided ongoing reinforcement for the father's behavior in the form of commenting, questioning, and praise. Laxness on the father's part was not evident during the videotaped sessions. Father overreactivity was not observed due to the immediate response of the child and father verbosity was consistently observed throughout the study. However, the father reported less than average scores on verbosity. Unfortunately, the father did not return the questionnaires at completion of our study despite the efforts of the PI. Therefore, comparison between pre-study and post-study father reports was not possible.

Before our study, the father reported on the CBCL (Achenbach, & Edelbrock, 1983) an internalizing T-score of 47, an externalizing T-score of 50, and a total score of 34 (Table 4.7). The father did not report any problem behaviors in the clinical range.

The father stated his child exhibited immature, impatient, and attention- getting behavior; avoidance of eye contact; and inability to sit still. Somewhat problematic behaviors were reported as hitting, defiance, and disobedience. The father reported concerns with destructive child behavior, poor peer relations, loudness, fearlessness, and poor appetite. In addition, the father believed that his child's problem behavior was influenced by his child's poor mood. The father expressed certainty that James was deliberate in his actions; knew right from wrong; and often chose the wrong action.

Frequencies of Target Behaviors

During Condition A, four father-child play sessions were videotaped in the subjects' home (twice per week). The ratio of father initiations to child initiations was approximately 2:1, with father initiations greater than .66 of the total initiations (Table 4-9). The father had few positive responses with an average rate of 2 per session; while the corrective statements had an average rate of 13 per session. The father did not use any negative comments or the I/A skill. James did not exhibit any incidents of aggression or elopement. The ratio of means of FIT to CIT was approximately 2:1; FIT equal to .66 of the total initiated turns with affirmation.

The first parent training session (PT-1) followed Condition A. Then, five father-child play sessions were videotaped (twice each week). The PI had difficulty scheduling the videotaping sessions and several sessions were cancelled en route. The father stated that he started a second job and he was unable to leave the workplace. The ratio of father initiations to child initiations was approximately 1:2; child initiations greater than .66 of the total initiations. In addition, the father's positive responses increased to an average rate of 9.4, more than three times greater than condition A. The corrective statements decreased from an average rate of 13 in Condition A to an average rate of 1.6 in

Condition B. The father stated that he was uncomfortable with I/A at the completion of IA#2. Consequently, I/A was reviewed prior to session IA#3, IA#4, and IA#5. The average rate of the father's use of I/A remained at 4 per session. Due to the limited use of I/A during the first four sessions, a fifth videotaping session was scheduled. The average rate of I/A did not change. James did not exhibit any incidents of aggression or elopement. The ratio of means between FIT and CIT was approximately 1:2; CIT almost .66 of the total initiated turns with affirmation.

The father received the second parent training session (PT-2) and four father-child play sessions were videotaped (twice each week). The PI had difficulties scheduling the videotaping sessions with the father. Several father-child play sessions were cancelled en route. The father stated that he and his wife had marital problems, and that he had considered separation. He reported that both parents had made efforts to work through the conflict, and he wanted to continue participation in the study. Four father-play sessions were videotaped. The ratio of father initiations to child initiations was approximately 1:2; child initiations greater than .66 of the total initiations. The father's positive responses remained greater than four times the average rate of Condition A with an average rate of 8.8. The average rate of the father's corrective statements was .8, less than one per session. The father continued to I/A at approximately the same rate. James did not exhibit any incidents of aggression or elopement. The ratio of means between FIT and CIT was approximately 1:1; CIT greater than .50 of the total initiated turns with affirmation.

The father often spoke, commented, questioned, and instructed James during the father-child play sessions. James frequently praised the father's efforts. After PT-2, the

father directed play; requested feedback from James regarding the activity; and responded positively to praise from James. It was interesting that the child continued to initiate play with little father attention and few positive father responses.

During the third parent training session (PT-3), the father expressed a positive attitude about the project. He shared that he and his wife continued to have marital problems, and that he anticipated leaving for employment out of town. The father planned to continue our study until completion. Two father-play sessions were videotaped. Several father-child play sessions were cancelled en route. After the final cancellation, the father stated that he was scheduled to leave for employment in south Florida and could no longer participate in the study. The father was unable to meet to cancel his participation in the study and agreed to return the post intervention surveys by mail. Two phone messages were left on his voicemail. The surveys were not received.

After PT-3, the ratio of father initiations to child initiations for both videotaped sessions was approximately 2:3; child initiations greater than .50 of the total initiations. The father had 9 positive responses in the first session and 0 in the second session. The father did not exhibit any corrective statements in the first session, but exhibited 7 in the second session. The father did not make any negative comments. The father did not use I/A in IC#1 and used I/A 7 times during the final session IC#2. James did not exhibit any incidents of aggression or elopement. The ratio of means of FIT to CIT was 1:1 with balanced turn taking.

Visual Report of Data

The father decreased initiations and James initiated play more often in Condition B (Figure 4-11). The father often requested James approval, attention, and help. The father's positive responses increased, and the father's corrective responses decreased

from Condition A to Condition B (Figure 4-12). Interestingly, a significant decrease in the father's positive responses was noted during IB#2 and the last videotaped session. During IB#2, the father directed the activities with his child. During the final videotaped session, James led the majority of the activities. The father frequently commented and asked for feedback from James. In addition, the father provided more corrective statements.

The father verbalized difficulty with I/A following the PT-1 and throughout the study. Due to the low incidence of I/A following the PT-1, a fifth videotaping session was scheduled (Figure 4-13). Despite a review of I/A before the third, fourth, and fifth father-child play sessions, the father did not increase the use of I/A. A minimal change in level in I/A is noted between Condition A and Condition B, with the greatest number of incidents noted following the second parent training session. There were no occurrences of I/A during the last videotaped session. A comparison of father initiations and child responses revealed that child responses remained relatively stable, despite a decrease in father initiations between Condition A and Condition B (Figure 4-14).

A change in FIT and CIT was evident between Condition A and Condition B (Figure 4-15). CIT increased and were more balanced with FIT in Condition B. The father spoke often and did not wait for a child response during Condition A. On the contrary, the father waited for James to respond and initiated a turn less often during Condition B until following PT-2. FIT were greater than CIT on two occasions. Father-child play sessions IB#2 and IC#2 were atypical. During session IB#2, the father directed the majority of the play and James participated. In addition, there was an increase in child responses as well as a decrease in the father's positive responses.

During session IC#2, the child directed the majority of the play. The father frequently commented and/or requested feedback. James' responded to the father's verbosity and provided positive feedback, answered questions, and did not exhibit frustration or anger; James continued to participate in the father's activity and initiate play without positive reinforcement or attention.

Father and Child Dyad D

Using the Hollingshead (1975) criteria, the family was estimated to fall in the second highest social strata (Table 4-13). The father was self-employed and the owner of a mid-sized construction business. His wife was a homemaker and was 9-months pregnant with her third child. After the birth of the newborn, the parents had three biological male children ages, 8-years, 3-years, and a newborn. For the purpose of discussion, Child D was referred to as Bobby.

Bobby was diagnosed at 3-years-old by a primary care pediatrician in private practice. The father stated that Bobby's height and weight were greater than 95% for his age group and that he appeared older than his age. In addition, Bobby was diagnosed with speech delay and was receiving therapy. The father refused to consider medication for Bobby to treat ADHD. Bobby was not prescribed medication for ADHD. An older brother was diagnosed with ADHD without hyperactivity several years prior because of academic problems; he took a long-acting stimulant each morning. The father expressed concern that Bobby may need medication in the future. The father discussed that he had difficulty with discipline strategies, uncertainty about a course of action, and concern about Bobby's aggressive behavior towards his older brother. The father expressed distress that Bobby may have academic difficulties as well as behavioral problems. Bobby was asked to leave two previous preschool programs before enrolling in a third

preschool five days each week. Frequent teacher reports included complaints of impulsivity, aggressive behavior (e.g., hitting and tackling), and academic problems.

The parents asked to start our project before the impending birth of their baby. Both parents verbalized the need to maintain a sense of balance and normalcy within their home. The father stated that Bobby would benefit from the increased father attention before the birth and during the first few months of the newborn period. The family often spent evenings and weekends together in activities that included going to the beach, boating, four-wheeling, and fishing.

Before our study, the father reported ineffective discipline skills evidenced by greater than average scores in laxness, overreactivity, verbosity, and the total score (Table 4-10). Despite the reported decreases in all scores at completion of our study, the scores remained greater than average. The father showed changes in laxness, overreactivity, and verbosity throughout our study. For example, Bobby changed the car ramp three times during one baseline session and the father readjusted the ramp each of the three times. Following the parent training sessions, the father gave fewer explanations, asked permission for a toy, waited for Bobby to offer a toy, and asked permission to participate. Bobby was more verbal and gave many creative explanations for toys during play after the first parent training session. It was interesting that Bobby often imitated the father's creative play when given the opportunity.

Before and at completion of our study, the father reported an internalizing T-score of 73 and a total score of 54 on the CBCL (Achenbach, & Edelbrock, 1983). The externalizing score changed from 83 before the study to 77 at the completion of the study. Both the internalizing T-score and the externalizing T-score remained in the clinical

range of problem behavior (Table 4-10). In addition, the father reported that Bobby had affective problems and pervasive developmental problems in the clinical range, and anxiety and ADHD problems in the borderline range. Withdrawn behavior, sleep problems, attention problems and aggressive behavior were reported in the clinical range for problem behavior. Emotionally reactive problems, anxiety, and somatic complaints were reported in the borderline clinical range of problem behavior. Only oppositional defiant problem behavior was reported within normal range.

Bobby was known to react with physical aggression, defiance, hitting, destructive behavior, disobedience, and temper outbursts usually without guilt. The father perceived Bobby as selfish and easily frustrated. The father stated that Bobby had been cruel to animals without remorse. For example, he often hit his dog and had hurt neighborhood animals. The father reported that discipline was difficult because verbal explanations or the loss of privileges did not seem to have an effect on Bobby's behavior. The father believed that sending Bobby to his room was the most effective consequence for problem behavior. However, the father stated that the problem behavior did not change.

Sleep problems reported by the father included Bobby's difficulty with sleep rituals. He did not want to go to sleep, woke frequently, had nightmares, and did not want to sleep alone. The father stated that often he would wake in the middle of the night to find Bobby on the floor at the foot of his bed. The father reported that he and his wife worked together to assist Bobby at bedtime. The father expressed concern that Bobby seemed depressed and anxious and noted that Bobby was often withdrawn, avoided eye contact, and did not respond to questions or commands. In addition, Bobby was frequently upset when separated from his parents.

The father believed that Bobby's problem behavior was influenced by his child's effort and mood (Table 4-11). In addition, the father expressed concern about Bobby's aggressive behavior towards his brother and friends. The father discussed that Bobby's behavior was increasingly worse with his wife. The father asked if his wife could participate in parent training since she was the primary caretaker, and she had difficulty providing consistent discipline for Bobby's problem behaviors. The PI agreed to provide parent training for the mother after the father-child training protocol was completed.

Frequencies of Target Behaviors

In Condition A, five baseline father-child play sessions were videotaped. The mother gave birth to the third son after the first videotaped session. Therefore, one week elapsed before the second videotaping session. The next four baseline sessions were videotaped (twice per week) in the subjects' home. The ratio of father initiations to child initiations was approximately 2:1; father initiations greater than .66 of the total initiations (Table 4-12). The father had few positive responses with an average rate of 5.3, while the corrective statements were an average rate of 19.8 per sessions. The father did not make any negative comments. The father used I/A once during B#2 before the first parent training session. Bobby exhibited four incidents of aggression during B#2 and did not exhibit any incidents of elopement. The ratio of means of FIT to CIT was approximately 3:1; FIT almost .75 of the total initiated turns with affirmation.

The father received the first parent training session (PT-1) and four father-child play sessions were videotaped (twice per week). There was a significant change in father-child initiated play. The ratio of father initiations to child initiations was approximately 2:3, almost .66 of the total initiations. The father's positive responses increased greater than three times in Condition A to an average rate of 19.8. The father's

corrective statements decreased from an average rate of 19.8 to 2.5 per session. The father did not use any negative comments. The father used I/A without difficulty an average rate of 13 per session. Bobby exhibited few incidents of aggression with an average rate of 1.5 per session and did not exhibit any incidents of elopement. The ratio of means of FIT to CIT was approximately 1:3; CIT almost .75 of the total initiated turns with affirmation.

During the second parent training session (PT-2), the father expressed the possibility that he had ADHD, and that he and his son have similar characteristics and behavior. The father stated that he was not a model student and struggled with academics, but he excelled in sports. In addition, the father expressed concern that his son continued to receive negative teacher comments about impulsive and aggressive behavior (e.g., hitting, shoving, and tackling other children) on a daily basis. The father stated that play in the home with Bobby and his eight-year old brother before the parent training sessions involved wrestling and rough play. After the parent training sessions, the father changed to activities that didn't involve aggressive play.

Father-play sessions were videotaped twice per week. Similar to PT-1, the ratio of father initiations to child initiations was approximately 2:3, with the child initiations almost .66 of the total initiations. The average rate of the father's positive responses was 13.5 per session; greater than two times the average rate of Condition A. The father had an average rate of corrective statements of 1 per session. The father did not use negative comments. The father continued to use I/A, with an average rate of 14 per session. Bobby exhibited 3 incidents of aggression in session IB#4 and did not exhibit any

incidents of elopement. The ratio of means between FIT and CIT was approximately 1:3; CIT greater than .75 of the total initiated turns with affirmation.

The father was taught the third parent training session (PT-3). During the discussion, the father stated that Bobby's aggressiveness towards the older sibling continued. For example, Bobby often smacked the older brother in the face while seated in the car with no provocation. The father reported that discipline skills (e.g., time out and limit setting) were not helpful and that immediate consequences for problem behavior were not always possible. The father was advised to deal with aggressive behavior consistently. A token reward system was reviewed. The father was encouraged to praise Bobby often for appropriate behavior. In addition, the father was advised that problem behavior could increase initially. The problem behavior was expected to decrease with consistent behavior management and discipline strategies.

Father-play sessions were videotaped (twice each week). At the beginning of the fourth father-child play session, Bobby was uncooperative and the session was discontinued after 2-minutes. A fifth session was scheduled. However, the child was tired, angry and uncooperative and the session was rescheduled. During another visit the father was at home but the child was at a birthday party. A final session was scheduled and videotaped. Similar to PT-1 and PT-2, the ratio of father initiations to child initiations was approximately 2:3. The child initiations were almost .66 of the total initiations. The father's positive responses continued at an average rate of 10 per session, twice the rate during Condition A. The father's corrective statements were few with an average of 3 per session. The father did not use negative comments. The father continued to increase his use of I/A with an average rate of 17.8 per session, greater than

the average rate following PT-1 and PT-2. The child exhibited 3 incidents of aggression in session #1, 2 incidents in session #2, and 15 incidents in the final session. There were no incidents of elopement. The ratio of means of FIT to CIT was approximately 1:4; CIT greater than .75 of the total initiated turns with affirmation.

Visual Report of Data for Father and Child Dyad D

During Condition A, Bobby played in isolation. The father chose the type of play, attempted to interact with Bobby, and directed the activity. In contrast, during Condition B the father initiations decreased and the child initiations increased (Figure 4-16). After the parent training sessions, Bobby initiated play more often, demonstrated creative play, and verbalized choices of following play. In addition, the father commented in response to Bobby's direction of play and was less inclined to direct the play. The father followed Bobby's directions, requested instructions, and waited for Bobby's response before initiating an activity.

After the parent training sessions, the father's positive responses increased and the father's corrective responses decreased (Figure 4-17). The father followed Bobby's lead in play, requested direction and/or permission from Bobby, and continued to interact with Bobby. Few corrective statements were made. The father accepted and followed Bobby's direction during father-child play sessions. Similar play was noted in the sessions IC#1 and IC#2. The father's desire to follow Bobby's direction seemed to affirm a sense of competence in Bobby. Bobby gave more directions; played with more imagination and creativity; and anticipated the father's participation.

The father had no difficulty with I/A after instruction during PT-1, and he used the skill throughout the study (Figure 4-18). For example, Bobby made car sounds when moving the truck around the floor; made the truck jump in a twirling fashion; or pushed

the truck across the floor. The father emphasized the truck sounds, made the truck jump twirling higher, or made the truck spin across the floor. Interestingly, Bobby observed the father's creative expression and incorporated that into his own play. It appeared that the father's emphasis and animation of Bobby's activity encouraged Bobby to play with more confidence and creativity. However, there was no evidence to support that the father's use of I/A influenced the child responses (Figure 4-18). It was noteworthy, that the father initiations decreased between Condition A and Condition B while the child responses remained relatively stable (Figure 4.19).

The FIT decreased and CIT increased in Condition B and remained relatively stable as compared to Condition A (Figure 4-20). The father spoke often and directed the play in Condition A. During Condition B, the father allowed Bobby to lead the play, followed Bobby's directions, waited for Bobby to respond, initiated a turn less often, and increased his use of I/A. An interesting point is that CIT were relatively high, FIT were relatively low, and the distance between the two levels was consistent. The father responded to the child initiations with questions, comments, and requests and completed the child initiated turn with affirmation. For example, Bobby made a path for the truck, removed the wave runner, and drove it in the imaginary water. The father asked Bobby for permission to drive the truck and trailer to the edge of the area and wait for the wave runner. Bobby gave permission and drove the wave runner on the trailer and instructed the father to drive the truck to another area. The father responded and continued a positive reciprocal father-child interaction.

Summary of the Four Father and Child Dyads

A comparison of each subject's demographics, descriptive characteristics, and performance across the two conditions of this study is discussed. As anticipated, all four

fathers used the parenting strategies and skills that were taught during the in-home parent training sessions. In addition, all four children responded with positive behavioral changes following the father's use of parent skills. Comparison of the family demographics (Table 4-13) shows that the families vary in age, education, and social strata. Three of four children were in the 3-year-old age range and attended pre-school full-time. Child C (James) attended kindergarten. Each child was asked to leave at least two previous daycare programs because of to aggressive behavior. Each family continued to receive frequent teacher complaints of aggressive behavior from the child's teacher. In addition, Child A (Jordan), Child B (Thomas), and Child D (Bobby) were diagnosed with speech and language delays and received therapy. Their fathers reported academic concerns such as poor recollection of colors, numbers, and/or letters. However, Child C (James) differed from the other subjects in a number of ways. James was biracial, 5-year and 8-month in age with academic success and no documented developmental delays. James was tested for advanced placement in the school system because of his above average academic abilities.

All four fathers reported that they were self-employed. Each father expressed the inability to work for an employer. Each father discussed the possibility that he had ADHD as a child. All fathers stated that they could relate to their children's behavior and had similar behaviors as children. Father A, Father C, and Father D stated that as children they were successful (academics or sports). Each father believed that their child would grow up without problems. Father B left school in junior high because of academic failure. He expressed concern that Thomas would experience similar failure in school. Each father was opposed to medication for treatment of ADHD in his child. All

fathers expressed a commitment to participate fully in the study and a desire to improve their children's behavior without medication.

A comparison of beliefs in Father A, Father B, and Father D about discipline and attributions for their child's noncompliance is reported in Table 4-14. Because of missing data, no comparisons about beliefs regarding discipline or noncompliance with Father C were possible. Before our study, each father reported higher scores that equated with ineffective and dysfunctional child discipline. At completion of our study, Father A, Father B, and Father D reported higher scores for the total score, laxness, and overreactivity. Father B and Father D reported effective discipline practices related to verbosity compared to a high score in verbosity reported by Father A.

In addition, each father's belief about the noncompliance at completion of our study was compared (Table 4-14). Several points were assessed parent controlled behavior (effort and mood) and child controlled behavior (effort and mood). Father A attributed Jordan's noncompliance to the lack of parent effort (parent control) and Jordan's poor mood (child control). Father B attributed noncompliance in Thomas to a lack of the father's effort and poor mood (parent control), his child's lack of effort and poor mood (child control). Father D attributed Bobby's noncompliance to a lack of his child's effort and poor mood. In comparison, only Father D attributed his child's problem behavior completely within his child's control. Father A and Father B attributed problem behavior within their child's control as well as within their own control.

A comparison of fathers' perception on problem behavior (Table 4-14) revealed that Child A, Child B, and Child D were reported within the borderline or clinical range of an externalizing disorder. Child B and Child D were reported within the clinical range

of an internalizing disorder and pervasive developmental problems. Additional problem behaviors within the clinical range reported for Child A, Child B, and Child D.

Interestingly, each fathers reported significant problems related to their children's sleep rituals and sleep habits. However, Father B reported that before our study efforts towards a structured and consistent bedtime ritual had positively influenced his child's bedtime behavior.

The comparisons of targeted behavior between subjects and across the conditions of this study are presented with the exclusion of Father C and Child C because of the lack of data. A comparison of means of father's responding behaviors during Condition A revealed that each father had less than 6 positive responses and greater than 9 corrective responses (Figure 4-21). All father initiations ranged between 64 and 70% of the total initiations (Figure 4-23). All child initiations ranged between 30 and 36%. The FIT ranged between 66 and 84% and CIT ranged between 16 and 34% of the total initiated turns with affirmation.

A significant change was noted between Condition A and Condition B. During Condition B, the fathers had greater than 10 positive responses and 3 or fewer corrective responses (Figure 4-22). All father initiations ranged between 35 and 46% of the total initiations (Figure 4-24). The child initiations ranged between 54 and 65%. The FIT ranged between 24 and 44% and CIT ranged between 56 and 76% of the total initiated turns with affirmation.

In summary, each of the targeted father behaviors and targeted child behaviors changed between Condition A and Condition B. The father positive responses increased, the corrective responses decreased, and I/A increased. The father initiations decreased,

the child initiations increased, FIT decreased, and CIT increased. Clearly, each father implemented the father skills that were taught during the parent training sessions. Father B and Father D had the greatest decrease in corrective statements, the highest use of imitation with animation, and the greatest increase of positive responses. Significant improvement was evident in each of the fathers' initiations and each of the children's initiation. A large difference in the initiated turns with affirmation in Father D and Child D was evident. However, initiated turns with affirmation were more balanced for Father B and Child B. In addition, Father B reported a decrease in his child's problem behavior and more effective father discipline at completion of our study (Table 4-5).

Interobserver Agreement

To assess interobserver agreement on the coding of target behaviors, the PI followed the observer training sequence developed by Elder (1995) described on page 47. To minimize the potential for bias, a second independent observer coded 25% of the videotaped father-child videotaped sessions. The independent observer was blind to the conditions under which the videotapes were taken. The observer and the PI established a criteria level of 80% or greater interrater agreement before coding the father-child play sessions. The independent observer randomly selected and coded 25% of the videotaped sessions to evaluate for observer drift throughout the course of our study. Interobserver agreement did fall below 80% two occasions during the coding. The operational definitions were clarified and practice sessions continued until a level of 80% agreement was obtained. Interobserver reliability was expressed as percentage agreement with a range between 76 and 93% between two independent observers (Table 4-15).

Social Validity

A semi-structured interview described on page 45 was used to assess the father perception of the parent training process. The fathers reported perceptions about the training process on a scale of 1 to 5 (Table 4-16). The children's behavior was very typical at a score of one or not typical at a score of 5. All four fathers reported that their children's behavior during most of the videotaped play sessions was very typical and that the presence of the camera and/or the PI had a minimal effect on child behavior. Each father reported comfort with the parent training skills, use of the skills often, and that the skills worked well.

The Therapy Attitude Inventory (Eyberg, 1993) described on page 46 was used to assess the fathers' satisfaction with the process and outcome of parent training completion of our study. A total of 10-items are included that address the impact of therapy on parenting skills and the child behavior. The fathers were asked to rate the items on a scale from 1 (indicating dissatisfaction with treatment or a worsening of problems) to 5 (indicating maximum satisfaction with treatment or improvement of problems) at the completion of the study. The item ratings yield a possible score of 5.0 on a scale of 1 to 5. Each father reported satisfaction with the process and the outcome of the parent training intervention with a score that ranged from 4.0 to 4.4. In summary, the fathers perceived the parent training intervention as socially valid, reported minimal reactivity effects, and documented satisfaction with the process and outcome of the parent training (Table 4-17).

Table 4-1. Summary of Father A effectiveness in discipline

Instrument	Before Study	Completion of Study
Parenting Scale (1993)*		
Total score (3.1)	3.9	3.8
Laxness (2.8)	3.4	3.5
Overreactivity (3.0)	3.9	4.0
Verbosity (3.4)	4.4	3.9
CBCL(1983) **		
Internalizing T score	49	37
Externalizing T score	65	74
Total score	46	48

*Scale of 1-7, higher scores = dysfunctional parenting

**Score of 60 & above = clinical range of problem behavior

Table 4-2. Summary of Father A beliefs about child noncompliance

Interactions Questionnaire (1995)*	Before Study	Completion of Study
Parent effort	4	5
Parent mood	7	6.3
Child mood	6.6	5.6
Child effort	4	6.3

*Scale of 1 to 10, 1 = really true, 10 = not true at all

Table 4-3. Means of target behaviors for Father A and Child A

Target Behaviors	Condition A Baseline	Condition B			Mean PT*
		PT* 1	PT* 2	PT* 3	
Father Initiations/ Total Initiations	70%	46%	47%	45%	46%
Child Initiations/ Total Initiation	30%	54%	53%	55%	54%
Child Responses	37	33.2	41.2	41.2	38.5
Father Positive Responses	5.8	12.5	6.5	10.5	7.4
Father Corrective Responses	15	.7	5.3	4	3
Imitation/Animation	0	10	8.5	4.8	7.8
Child Aggression	0	4.5	5.8	2.2	4.2
Father Initiated Turn/ Total Turns	84%	41%	44%	46%	44%
Child Initiated Turn/ Total Turns	16%	59%	56%	54%	56%

* PT – Parent training session

Table 4-4. Summary of Father B effectiveness in discipline

Instrument	Before Study	Completion of Study
Parenting Scale (1993)*		
Total score (3.1)	3.6	3.5
Laxness (2.8)	3.7	3.4
Overreactivity (3.0)	4.0	4.0
Verbosity (3.4)	3.4	2.8
CBCL (1983)**		
Internalizing T score	62	61
Externalizing T score	65	59
Total score	46	43

*Scale of 1-7, higher scores = ineffective parenting

**Score of 60 & above = clinical range of problem behavior

Table 4-5. Summary of Father B beliefs about child noncompliance

Interactions Questionnaire (1995)*	Before Study	Completion of Study
Parent effort	1.3	2.7
Parent mood	7	2.3
Child mood	4.7	2
Child effort	2	2

* Scale of 1 to 10, 1 = really true, 10 = not true at all

Table 4-6. Means of target behaviors for Father B and Child B

Target Behaviors	Condition A Baseline	Condition B			Mean PT*
		PT* 1	PT* 2	PT* 3	
Father Initiations/ Total Initiations	64%	41%	35%	35%	37%
Child Initiations/ Total Initiation	36%	59%	65%	65%	63%
Child Responses	32.2	28.5	37.2	33.2	33
Father Positive Responses	3	8.8	10.2	15	11.3
Father Corrective Responses	8	0	0	0	0
Imitation/Animation	0	10.5	11.8	20	14.1
Child Aggression	0	0	.4	0	0
Father Initiated Turn/ Total Turns	30/69%	18/32%	18/38%	18/40%	36.7%
Child Initiated Turn/ Total Turns	13/31%	38/68%	30/62%	27/60%	63.3%

* PT – Parent Training Session

Table 4-7. Summary of Father C effectiveness in discipline

Instrument	Before Study
Parenting Scale (1993)*	
Total score (3.1)	4.1
Laxness (2.8)	4.1
Overreactivity (3.0)	4.0
Verbosity (3.4)	2.9
CBCL**	
Internalizing T score	47
Externalizing T score	50
Total score	34

*Scale of 1-7, higher scores = ineffective parenting

**Score of 60 = clinical range of problem behavior

Table 4-8. Summary of Father C beliefs about child noncompliance

Interactions Questionnaire (1995)*	Before Study
Parent effort	7
Parent mood	8
Child mood	6
Child effort	8.3

*Scale of 1 to 10, 1 = really true, 10 = not true at all

Table 4-9. Means of target behaviors for Father C and Child C

Target Behavior	Condition A Baseline	Condition B			Mean PT*
		PT* 1	PT* 2	PT* 3	
Father Initiations/ Total Initiations	65%	31%	33%	40%	34.7%
Child Initiations/ Total Initiation	35%	69%	67%	60%	65.3%
Child Responses	19	21	22	26	34.3
Father Positive Responses	2	9.4	8.8	4.5	7.7
Father Corrective Responses	13	1.6	.8	3.5	2
Imitation/Animation	0	4	4.8	1	3.3
Child Aggression	0	0	0	0	0
Father Initiated Turn/ Total Turns	23/66%	18/36%	18/49%	20/50%	45%
Child Initiated Turn/ Total Turns	12/34%	32/64%	19/51%	20/50%	55%

*PT – Parent Training Sessions

Table 4-10. Summary of Father D effectiveness in discipline

Instrument	Before Study	Completion of Study
Parenting Scale (1993)*		
Total score (3.1)	4.4	3.96
Laxness (2.8)	3.8	3.36
Overreactivity (3.0)	4.5	4.2
Verbosity (3.4)	4.3	3.57
CBCL**		
Internalizing T score	73	73
Externalizing T score	83	77
Total score	54	54

*Scale of 1-7, higher scores = ineffective parenting

**Score of 60 & above = clinical range of problem behavior

Table 4-11. Summary of Father D beliefs about child noncompliance

Interactions Questionnaire (1995)*	Before Study	Completion of Study
Parent effort	8.33	7.66
Parent mood	8.66	8.66
Child mood	7.66	7.66
Child effort	6.33	6.33

*Scale of 1 to 10, 1 = really true, 10 = is not true at all

Table 4-12. Means of target behaviors for Father D and Child D

Target Behavior	Condition A	Condition B			Mean
	Baseline	PT*-1	PT-2	PT-3	
Father Initiations/ Total Initiations	69	38	37	38	37.7%
Child Initiations/ Total Initiation	31	62	63	62	62.3%
Child Responses	38	31	35	33	33
Father Positive Response	5.3	19.8	13.5	10	14.3
Father Corrections	19.8	2.5	1	2.5	2
Imitation/Animation	.2	13	14	17.8	14.9
Child Aggression	1	1.5	0	5	2.2
Father Initiated Turn/ Total Turns	48/73%	21/28%	20/23%	16/21%	23.7
Child Initiated Turn/ Total Turns	18/27%	55/72%	61/77%	56/79%	76.3

* PT – Parent Training Sessions

Table 4-13. Comparison of family demographics

Subject	Age (years)	Race	Education	Social Strata*	Child's Age
Father A	41	Caucasian	B.A.	5	3-years & 7-months
Mother A	40	Caucasian	M.S.		
Father B	31	Caucasian	Junior High	3	3-years & 6-months
Mother B	31	Caucasian	Some College		
Father C	35	African/American	High School	2	5-years & 9-months
Mother C	33	Caucasian	Junior High		
Father D	28	Caucasian	A.D.	4	3-years & 1-month
Mother D	28	Caucasian	Some College		

*Hollingshead Four Factor Index (1975)

Table 4-14. Comparison of descriptive data for subjects at completion of study

Descriptive Data	Child A/Jordan	Child B/Thomas	Child D/Bobby
Parenting Scale*			
Total Score (3.1)**	3.8	3.5	3.96
Laxness (2.8)	3.5	3.4	3.36
Overreactivity (3.0)	4.0	4.0	4.2
Verbosity (3.4)	3.9	2.8	3.57
Interactions Questionnaire**			
Parent Effort	Yes	Yes	No
Parent Mood	No	Yes	No
Child Effort	No	Yes	Yes
Child Mood	Yes	Yes	Yes
CBCL ***			
Disorder			
Internalizing T	37	61	73
Externalizing T	74	59	77
Total Score	48	43	54
CBCL*** Syndrome			
Affective Problems	C	N	C
Anxiety Problems	N	N	B
PDD	N	C	C
ADHD Problems	N	N	B
OD Problems	C	N	N
CBCL ***			
Psychopathology			
Emotional/Reactive	N	N	B
Anxious	N	N	B
Somatic Complaints	N	N	B
Withdrawn	N	C	C
Sleep Problems	C	N	C
Attention Problems	B	N	C
Aggressive	C	N	C

*Parenting Scale - Scale of 1-7, higher scores=dysfunctional parenting

**Interaction Scale - Y=Yes, N=No

***CBCL - Scale of 1-100, 60 & above = clinical range of problem behavior

CBCL Associated Problem Scales – B = borderline clinical, C = clinical, N = normal

Table 4-15. Mean and range of interobserver agreement

Subject	Reliability Checks	Mean Percentage of Agreement	Range of Agreement
Child A	4	84	76 – 87
Child B	4	86	81 – 93
Child C	4	85	82 – 90
Child D	4	83	76 – 92

Table 4-16. Comparison of means of reported scores of father's perceptions

Semi-Structured Interview*	Child A	Child B	Child C	Child D
Typical child behavior	1.9	1.1	1.0	1.6
No effect of camera/PI	2.1	2.1	1.0	1.5
Training working well	2.0	2.1	2.3	1.2
Training used often	1.5	2.9	2.2	1.8
Father comfort with skill	1.7	2.3	2.2	1.0

*Scale of 1 – 5, 1 = typical, 5 = not typical

Table 4-17. Summary of father's satisfaction with parent training

Therapy Attitude Inventory*	Total Score
Father A	4.0
Father B	4.4
Father C	**
Father D	4.0

*Scale of 1 to 5, 1 = dissatisfied, 5 = satisfied

**Father C did not return survey

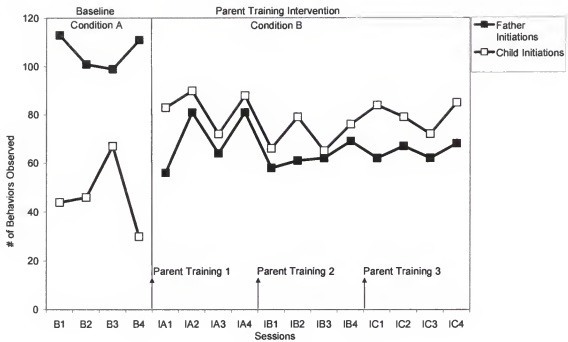


Figure 4-1. Father A initiations and Child A initiations

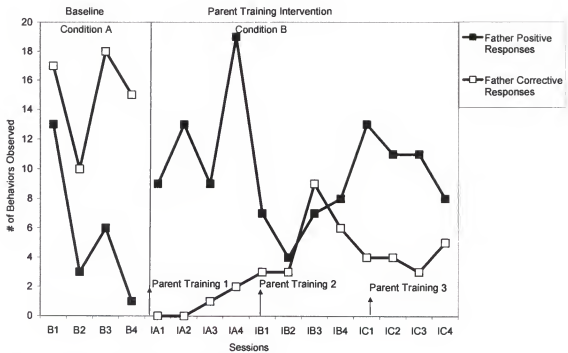


Figure 4-2. Father A responding behaviors

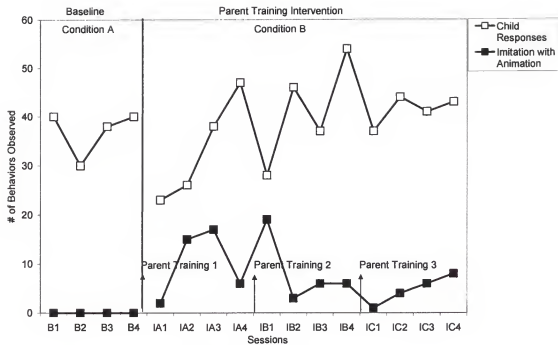


Figure 4-3. Child A responses and imitation with animation

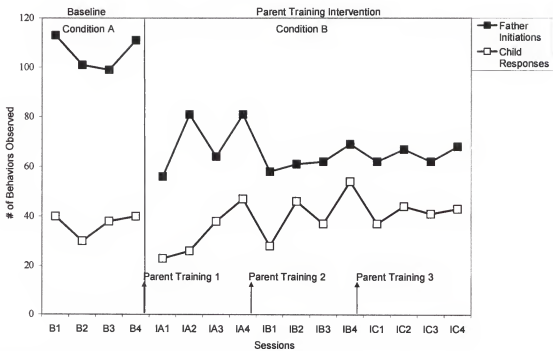


Figure 4-4. Father A initiations and Child A responses

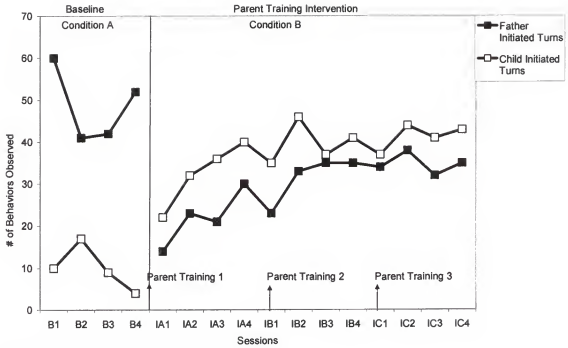


Figure 4-5. Father A and Child A turn taking

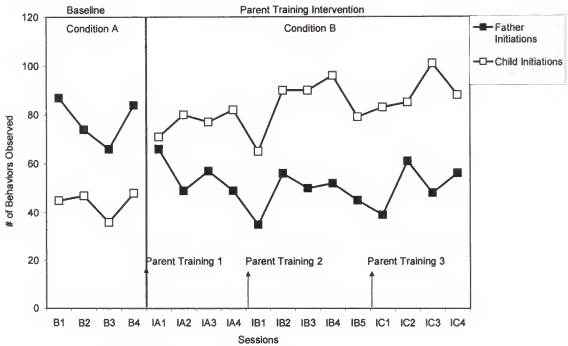


Figure 4-6. Father B initiations and Child B initiations

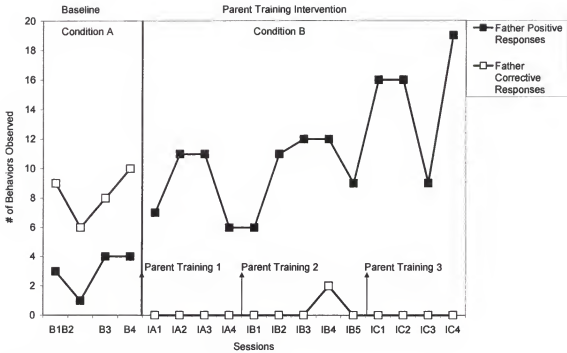


Figure 4-7. Father B responding behaviors

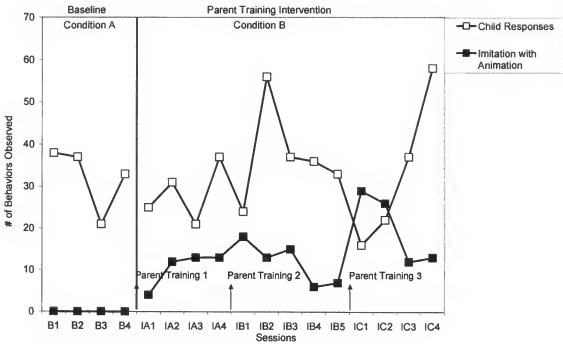


Figure 4-8. Child B responses and imitation with animation

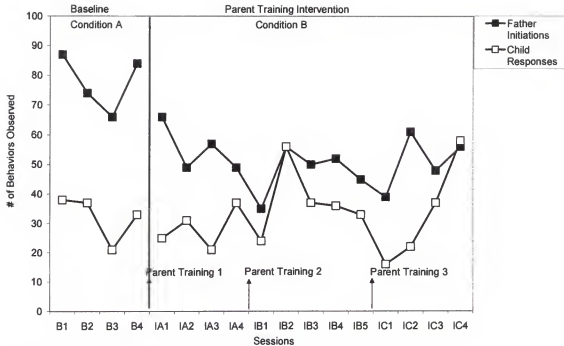


Figure 4-9. Father B initiations and Child B responses

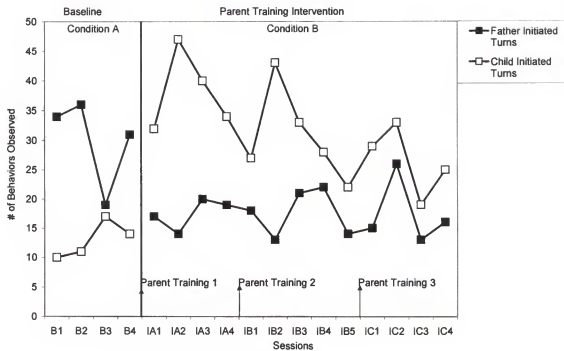


Figure 4-10. Father B and Child B turn taking

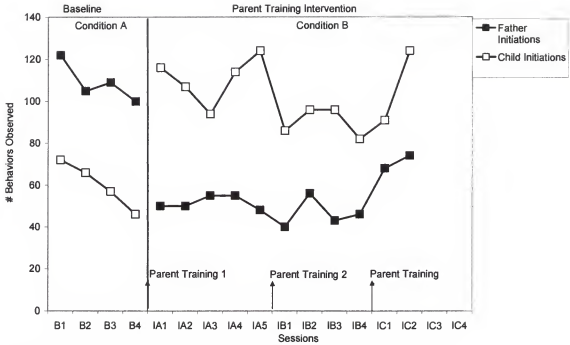


Figure 4-11. Father C initiations and Child C initiations

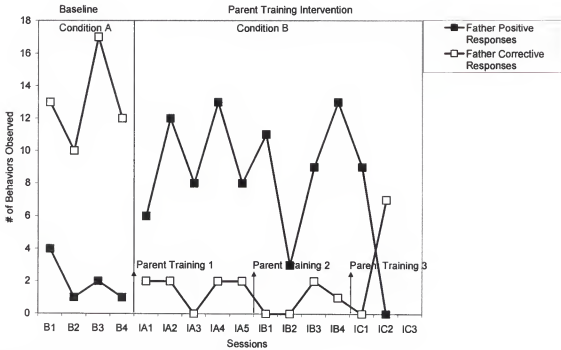


Figure 4-12. Father C responding behaviors

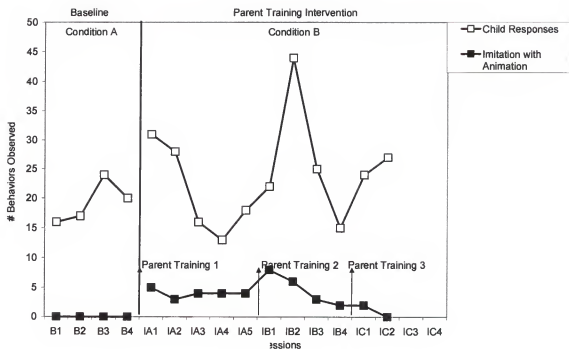


Figure 4-13. Child C responses and imitation with animation

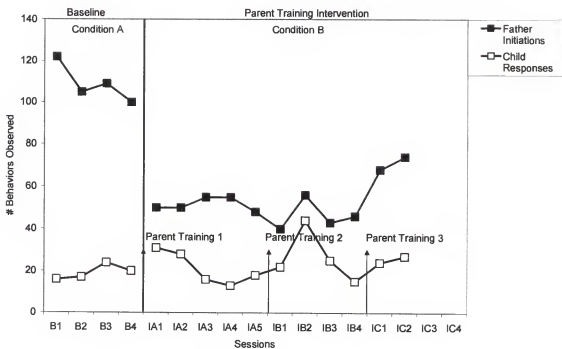


Figure 4-14. Father C initiations and Child C responses

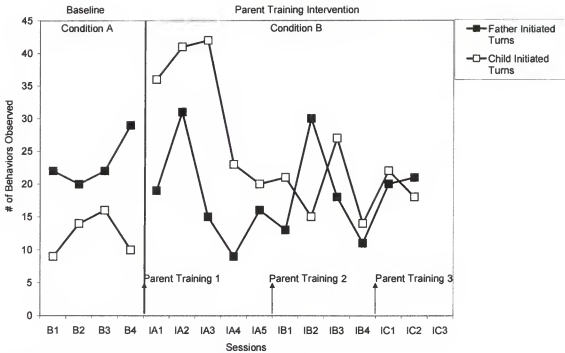


Figure 4-15. Father C and Child C turn taking

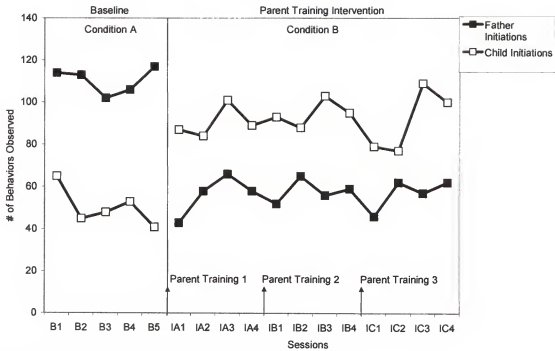


Figure 4-16. Father D initiations and Child D initiations

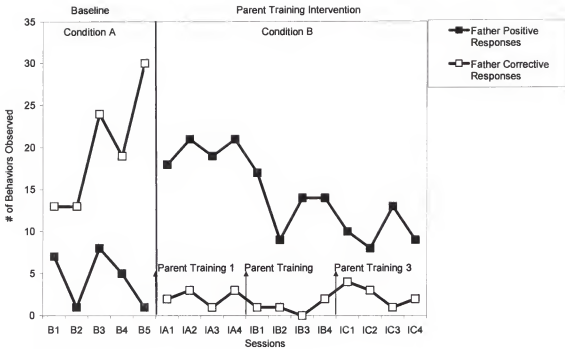


Figure 4-17. Father D responding behaviors

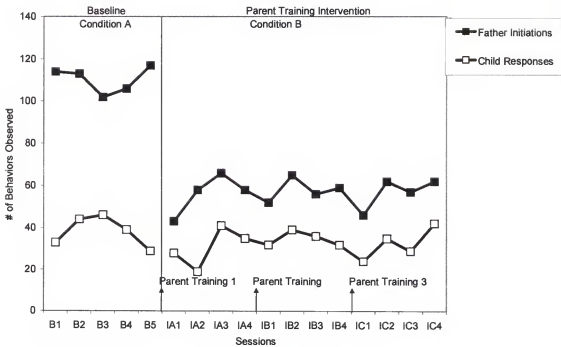


Figure 4-18. Child D responses and imitation with animation

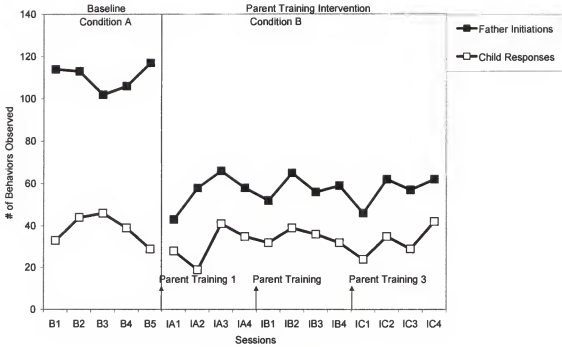


Figure 4-19. Father D initiations and Child D responses

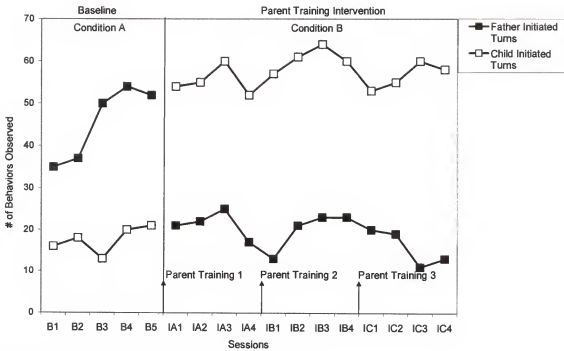


Figure 4-20. Father D and Child D turn taking

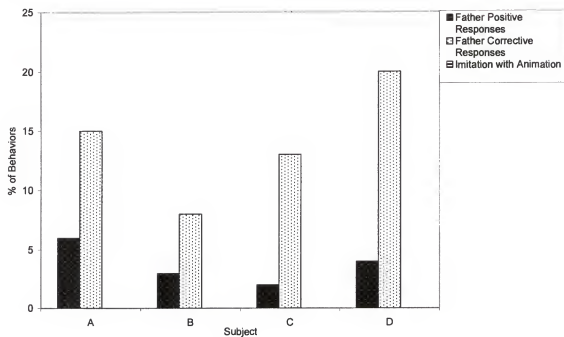


Figure 4-21. Comparison of father responding behavior during Condition A

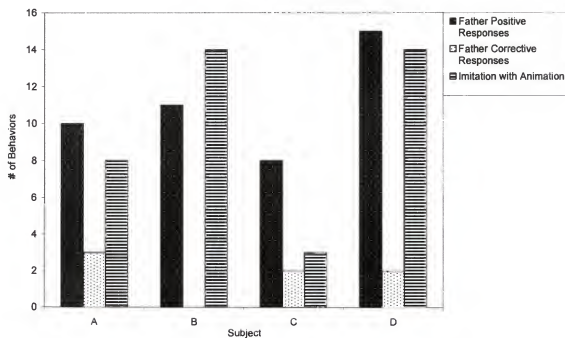


Figure 4-22. Comparison of father responding behaviors during Condition B

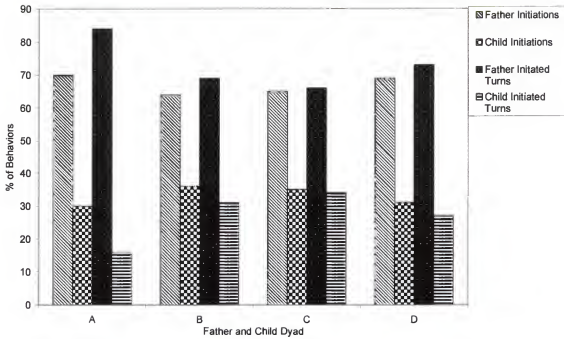


Figure 4-23. Comparison of target behaviors during Condition A

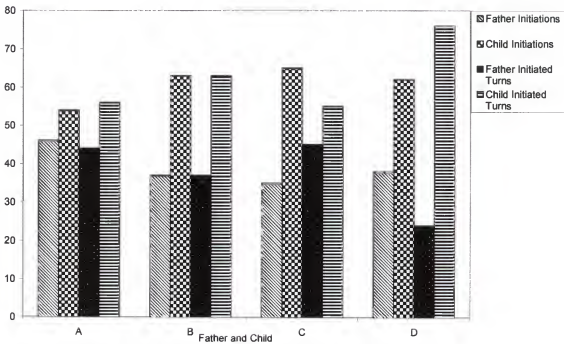


Figure 4-24. Comparison of target behaviors during Condition B

CHAPTER 5 DISCUSSION

The parent training strategies for fathers of children with ADHD in our study were based on Elder's (1995) research. The basic assumption is that father-child behaviors are interdependent. Equally important in our study is the observation that problem behaviors in children are a function of the father's reaction to the child. Reciprocal father-child interaction coupled with deficits in a child's cognitive processes, communication, and social skills often results in negative father reactions. This in turn, may create a cycle of coercion that escalates between the father and the child. As a result, negative and aggressive behaviors are reinforced and contribute to the evolution of childhood behavior disorders (Patterson et al. 1991). In addition to coercive interactions, a father's beliefs about competence, the ability to parent effectively, and the cause of his child's problem behavior may predict childhood behavior disorders and influence the father's compliance with treatment strategies. This can negatively affect treatment outcomes (Hoza et al. 2000; Slep, & O'Leary, 1998). On the contrary, accurate father interpretation of behavior and realistic beliefs may facilitate positive interactions between fathers and their children (Dix, & Grusec, 1985).

The purpose of our study was to characterize the interactions of four fathers and their young children with ADHD, and to evaluate the efficacy of an in-home parent training intervention for fathers on father behavior, father acquisition of parent training skills, and child behavior. In addition, questions were addressed on the social value of the parent training intervention and the effects on father-child interactions. Results from

our study support and validate this parent training model (Elder, 1995) and research in a new population, fathers of young children with ADHD. The nurse conducted in-home parent training intervention for fathers was shown to promote positive father-child interaction. These findings are consistent with King's description of a social-interactional approach in nursing practice, whereby nurses engage clients as active participants in a shared collaborative process, and contribute to all aspects of patient care (King, 1981, 1992). In addition, our study addressed the effects of the naturalistic environment on learning by conducting the parent training invention for fathers within the home. Single subject design (SSD) provided the means to investigate the interactions between the fathers and their children. The utility of SSD methodology in our study will be discussed as well as study limitations, clinical implications, and recommendations for future research.

Interpretation of Findings

The description of each father-child dyad included the socioeconomic status, father beliefs regarding child problem behaviors, father effectiveness in discipline, and father beliefs regarding causality of problem behavior. The assessment of behaviors during Condition A and Condition B provided valuable information regarding patterns of father-child communication and interaction. The parent training intervention was individualized based on the needs of the each father and child. All fathers were trained to assess their children's behavior and ultimately set realistic behavior goals. The fathers were taught to use parenting strategies and skills during interactions with their children in their home, while continuing to assess their children's behavior and adapt the parenting strategies and skills to obtain maximum benefit. The use of Elder's (1995) parent training model was essential for the development and the implementation of our parent

training intervention for fathers of young children with ADHD. Despite minimal improvement reported by fathers regarding effectiveness in discipline and their children's problem behavior, social validity data indicate that fathers were satisfied with the process and outcome of the parent training.

At completion of our study, fathers reported modest reductions in scores on the CBCL (Achenbach, & Edelbrock, 1983) with the exception of Father C due to a lack of data. The modest reductions were within the clinical range of an externalizing disorder, ADHD, and attention problems. In addition, the fathers reported modest reductions in scores on laxness, overreactivity, verbosity, and total scores. Despite the modest reductions, the scores remained in the dysfunctional range of parenting effectiveness in discipline.

A comparison of the frequencies of targeted father behaviors and targeted child behaviors across conditions was used to evaluate each father's proficiency with parenting strategies and their children's behavior progress. The results obtained by using direct behavioral counts for all four fathers and their children showed an increase in each father's use of imitation with animation, father positive responses, child initiations, and child initiated turns with affirmation. Conversely, there were decreases in the father initiations, father corrective statements, and FIT. All four fathers and their children demonstrated a ratio of 2:1 of father initiations to child initiations during Condition A. On the contrary, the ratio of father initiations to child initiations in Condition B was reversed with the child initiations greater than at least one-half of the total initiations. Similarly, the ratio of means of FIT to CIT in all four father and child dyads reversed from Condition A to Condition B; CIT greater than one-half of the total initiated turns

with affirmation. Thus, fathers who were taught to use parenting strategies in father-child interactions; engaged in the parent training process, positively reinforced appropriate child behavior, and facilitated child led play. As a result, significantly improved father-child interactions were evident.

Also noteworthy is that Father-Child B and Father-Child D showed substantial changes in targeted father behaviors and targeted child behaviors. Most evident was each father's consistent use of I/A throughout Condition B as well as increased positive responses and few corrective statements. Father B reported the most significant reduction in his child's problem behavior to the normal range of externalizing behavior, ADHD, and attention problems. A summary of data for each father-child dyad as well as commonalities and differences among the dyads was discussed in Chapter 4 on page 51. The results suggest a consistent, positive effect of the parent training intervention on each father's use of the parenting skills, targeted father behaviors, and targeted child behaviors.

Utility of Single Subject Design in Nursing Research

The single subject, AB design was chosen to examine the relationship between Condition A and Condition B. Continuous assessment of repeated observations of each father's targeted behaviors and each child's targeted behaviors provided the means to empirically investigate and analyze the individual behaviors. Each subject was exposed to the experimental conditions (parent training intervention), and was used as his own control. Repeated behavioral observations revealed that father-child interactions were often dependent on the type of play. It is unlikely that another method of inquiry would have been sensitive enough to detect the subtle changes during father-child play. This

illustrates how SSD methodology may discover and/or establish relationships not directly related to the main research question.

In our study, treatment integrity was assessed to determine that the parent training intervention was implemented as intended and to strengthen the internal and external validity. Typically, threats to internal validity in SSD are controlled and visual inspection of data eliminates Type 1 error. Subject reactivity was assessed in regard to the camera effect on the child behavior following every other videotaped father-child play session. Elder (1995) suggests that initial camera-conscious behavior in subjects is minimized as subjects are accustomed to the observers and/or cameras. At the completion of this study, all fathers reported only minimal effects of the camera in the majority of the father-child play sessions. Elder (1999) suggests that videotape methodology surpasses direct behavioral observations with regard to detecting extraneous variables and strengthens internal validity. Videotaped behavioral observations provided opportunities for more accurate pictures of target behaviors over time and eliminated confounding variables in the environment. The interobserver agreement that was reported in our study was .85 with a range of agreement between .76 and .93. Thus, our study showed that the replication of behaviors was likely due to the parent training intervention versus chance.

The external validity of our study and the likelihood of Type 2 error were addressed. Generalization of the relationship between parent training and the target behaviors across settings was not assessed. Consequently, the meaningfulness of the interpretations of this study under different circumstances may be suspect. However, a lack of generalization across settings is not considered a limitation in current research. SSD has no less generality and possibly greater generality than findings from group

research (Kazdin, 1998). Future research and replication of this study across settings that include the home and daycare or school and a multiple baseline design may enhance generalization.

Limitations Associated with this Research

There are a number of limitations regarding the findings of our study. First, only fathers were invited to participate. Valuable data regarding the effects of the parent training intervention on the mother's behavior was not available. This leads one to question if mother-child interactions would differ from father-child interactions following the parent training intervention? The fathers often complained that their spouses were not aware of the parenting strategies and interfered with discipline efforts to manage their children's problem behavior. Would the inclusion of mothers improve the outcome of this study? Future research including mothers is essential for determining the effects of this parent training intervention on father-child interactions as well as mother-child interactions.

Second, all four children referred for participation in this study were males diagnosed with ADHD. This leads one to question if father-daughter interactions differ from father-son interactions? Future research should include fathers and their daughters diagnosed with ADHD to characterize their interactions and determine the effects of the parent training intervention on father-daughter interactions.

Third, the question of how the parent training intervention affected each father's stress level or sense of competence was not addressed in this study. Assessment of the mother and father beliefs related to stress and competence as well as parenting effectiveness may yield important data regarding the effects of the parent training intervention on father-child interactions. Pisterman et al. (1992) reported that parent

beliefs following parent training were found to decrease parent stress and improve competence in families of preschoolers with ADHD. Decreased parental stress and improved competence were found to provide immediate benefit and had the potential for preempting dysfunctional cycles that led to behavior disorders and prolonged family pathology. Future research should consider the assessment of parent beliefs regarding parental stress, competence and effectiveness before the parent training, at completion of the study, and longitudinally.

Fourth, each child received a recent diagnosis of ADHD and was reported to be in good health prior to their participation in this study. However, there was no information from the health care provider regarding comorbid conditions and/or developmental delays or disorders. Before our study, the parents discussed concerns regarding their children's academics and/or speech delays. Clearly, problem behaviors reported by fathers suggested the possibility of depression, anxiety disorder, oppositional disorder, and pervasive developmental disorder. This investigator's nursing experience suggests that children with ADHD often have comorbid conditions that are difficult to assess and diagnose in young children. Future research should address this concern.

Fifth, the results of this study must be interpreted with caution. Despite the father reports of satisfaction with the parent training process and perceived benefits to their children at home, at school or daycare, and outside of the home; the findings were not studied across settings or for maintenance of treatment effects. Furthermore, only one father and child dyad was African-American. Further research is necessary to determine the generalizability of findings, and the maintenance of the treatment effects in the home and the school environment. Culturally specific issues should be addressed for further

development of a comprehensive, multi-component treatment package for children with ADHD.

Implications for Clinical Practice

Our study provides essential, contextual information about the interactions of fathers and their children with ADHD, and the efficacy of an in-home parent training intervention for fathers. In addition, this research builds on previous work cited in the literature and addresses the need for more information regarding fathers and their children with ADHD. The findings reported in our study have a number of clinical implications for the effective treatment of young children with ADHD. First, fathers were taught a set of reinforcing parenting strategies and skills to use during father-child interactions. The fathers positively reinforced appropriate child behaviors and facilitated child led play when taught to identify and respond consistently to child initiations, give the child adequate time to respond to father initiations, and allow the child to direct the father-child play sessions. Significantly improved father-child interactions and father satisfaction were evident following the implementation of this parent training intervention. Parent training interventions that assist in the characterization of father-child interactions and the evaluation of effects on father-child interactions may promote positive, reciprocal father-child behaviors and ultimately improve father-child communication and interactions.

Second, each father's belief about problem behavior in himself and in his child, effectiveness in discipline, and the causality of his child's problem behaviors influence the treatment outcomes across settings (Hinshaw, Owens, Wells et al., 2000; Hoza et al., 2000; Wells, Epstein, Hinshaw et al., 2000). Dysfunctional discipline is reflective of reactive parenting and linked to reciprocal, coercion parent-child interactions, and the

subsequent development of serious impairment in children with ADHD. Each father reported that he had undiagnosed ADHD as a child and “grew out of it.” The fathers reported modest improvement in discipline effectiveness and problem behavior in their children. Attributions for problem behavior in their children were mixed. Therefore, comprehensive multi-component packages with parent training as one component that addresses father beliefs and individualizes treatments may improve discipline practices in fathers and positively influence treatment outcomes.

Recommendations for Future Research

Limited information is evident in the literature on father-child interactions and the father’s influence on his child’s behavior (MTA, 1999; Webster-Stratton, 1985). However, there is substantial support that parent training approaches are a powerful tool for clinicians and researchers in the behavior management of children with problem behavior. Consequently, there is a dire need for empirically validated interventions for fathers and their children with ADHD. Training fathers parenting strategies to improve father-child interactions and appropriately discipline their children’s problem behavior may be a crucial step in halting children’s increasingly coercive behavior. Furthermore, our study of an in-home, parent training intervention for fathers of young children with ADHD provided essential, contextual information related to father-child interactions with implications for research.

Several questions have risen from this study. Each father requested that his wife receive parent training. Future research should address whether the inclusion of mothers would strengthen the effectiveness of the parent training intervention and if a measure of parenting stress and/or marital conflict would add to the understanding of father behavior. In addition, it is important to determine why fathers expressed difficulty with imitation

with animation (I/A) and if the presence of the PI during the videotaped father-child play sessions adversely affected the training process. More specifically, would fathers use I/A more often if an observer other than the PI videotaped the father-child play sessions? Further questions address the relationship of problem behaviors with a diagnosis of ADHD. Each father reported significant child sleep problems. Future research could characterize and document the presence of sleep problems in children with ADHD. Also important is the fact that every father believed that he had ADHD as a child. This leads one to wonder if fathers with a history of ADHD differ from fathers without ADHD. In addition, the type of play the fathers and children engaged in seemed to play an important role in the training process. Further work is needed to examine how the various types of play may influence father-child interactions.

A search to capture the diversity of father's characteristics, cultural influences, and father's beliefs on father-child interactions is essential. Children with supportive, reciprocal and sensitive relationships with parents are more likely to be well adjusted than children with less satisfying relationships (Lamb, 1997). Research with fathers and mothers regarding their beliefs, parenting practices, and interactions with their children is essential to the development of comprehensive, multi-component treatment packages, that facilitate child-directed play, match treatment to fathers on the basis of cognition, and incorporate specific father and child play. The challenge for future research is to understand the complex patterns of father-child interactions as well as mother-child interactions and answer substantive questions that promote and support parent-child interactions and positive treatment outcomes across settings.

APPENDIX A

OPERATIONAL DEFINITIONS FOR DEPENDENT VARIABLES

Imitating/animating: the movement cycle that begins within 5 seconds of a child's initiation (e.g., child utters a vocalization or jumps up and down) and the father imitates the child's behavior in an animated manner (e.g., exaggerated affect or lively movement).

Father initiations are verbal or physical cues. Verbal cues are commands given to the child to perform a specific behavior (e.g., "Give me the book."); comments indicating a specific item or event (e.g., "That is a book."), and questions including inflection to elicit, direct, or sustain the child's attention (e.g., "What is that?").

Physical cues are defined as active transfer of an object from father to child, gestures, and physical structure (e.g., taking the child's hand to assist in picking up a toy or turning the child's head to have eye contact with the child)

Father positive responding behavior is the movement cycle that begins with the occurrence of a child behavior and ends after the father initiates the requested movement or offers a positive comment (e.g., praise or thanking child), or a physical gesture (e.g., high five, pat on back, or a hug) within 5 seconds. Facial expressions such as smiling are included only if accompanied by praise or gesture (e.g., high-five or a pat on back).

Father negative responding behavior is the movement cycle that begins with the occurrence of a child behavior and ends after the father corrects the child verbally or physically (within 5 seconds of the child action) in a way that conveys anger, negative affect, or displeasure. The father's response may be a reprimand, critical, and/or corrective comment made about the child's behavior (e.g., "Sit down right now").

Father corrective responding behavior is the movement cycle that begins with the occurrence of a child behavior and ends after the father corrects the child verbally or physically (within 5 seconds of the child action) with a command in the form of a prompt in a way that does not convey anger, negative affect, or displeasure about the child's behavior.

Father no responding behavior is the movement cycle that begins with the occurrence of a child behavior and ends without a father response (within 5 seconds of the child action).

Father total responses are the sum of positive responding, negative responding, and corrective responding behaviors.

Father limit-setting is the movement cycle that begins with a child's misbehavior (e.g., aggression or tantrum) and ends with a father-initiated consequence to child misbehavior within 5 seconds.

Father ignoring misbehavior is the movement cycle that begins with a child's misbehavior (e.g., whining, pouting, tantrums, talking back, facial grimaces, brief crying, or baby talk) and ends without a father response within 5 seconds.

Father-initiated turn with affirmation is the movement cycle that begins with a father initiation (either a verbal or physical cue) and ends with a child response.

Child-initiated turn with affirmation is the movement cycle that begins with a child initiation and ends with a father's response.

Child initiations are either verbal initiations or physical initiations.

Verbal initiations are goal-directed intelligible or unintelligible vocalizations of a child to elicit or maintain a father's attention.

Physical initiations include active, child-initiated transfer of an object to the father, child gestures, or physical touching.

Child responses are the movement cycle that begins with the occurrence of a father's verbal command or request and ends after the child responds within 5 seconds to the father's requested movement.

Child tantrum/aggression are clearly audible crying sounds emitted by the child associated with kicking and/or flailing arms; hitting, biting, pinching, kicking, pulling or pushing father; throwing an object at the father; spitting at father; pushing into fathers body; not playing with toys appropriately; ripping or tearing objects; pounding on tables, walls, or floors with a closed fist or object; throwing objects; cursing or yelling at father; verbal threats; or dropping to floor.

Child elopement is defined as leaving the play area.

APPENDIX B
PARENT TRAINING INTERVENTION FOR
FATHERS OF YOUNG CHILDREN WITH ADHD

Ground-Rules

- Remember that your involvement is CRITICAL to the success of this program.
- Remember that consistency is CRITICAL to the success of this program.
- Please let the person videotaping know if there has been a change in routine, environment, health, or anything else that might affect the child or father at the time of videotaping.
- Please state if and when the child had medication and the dose. .
- You have a right to say “I just don’t feel like doing this today”. Please let us know in advance when possible.
- I am an “intruder” in your home. Be honest with me if I am inconveniencing you in any way. I will work hard to comply with your schedules.

Homework

- Review handouts each day prior to the father-child play session.
- Use child-directed play strategies and the imitating with animation technique during a 15-minute father-child play session five times per week.
- Continue to model appropriate behaviors throughout day in various settings when interacting with child.
- Love your child, demonstrate love to your child often, and praise your child often.

Schedule

You are asked to use the strategies and the imitating with animation skill each day in different settings. I will contact you at the end of week, following the second videotaped father-child play session (date) _____. If you have questions we will discuss and review the child-directed play strategies and the imitating

with animation skill. Two father-child play sessions will be videotaped the following week. An additional videotaped father-child play session may be necessary. Then we will begin the next training session.

Parent Training Session 1

Child-directed Play Strategies for Father

Discussion and handouts

How to play with your child

Follow your child's lead

Imitating with animation (I/A)

Praise

Use of strategies during play

Observe videotape demonstrations of behaviors

Role-modeling

Parent Training Session 2

Child Discipline Strategies for Father

Discussion and handouts

Limit-setting

Ignoring misbehavior

Timeout

Use of strategies during play

Observe videotape demonstrations of behaviors

Role-modeling

Parent Training Session 3

Review of Parent Training Session 1 and 2

Child-directed Play Strategies for Father

Child Discipline Strategies for Father

APPENDIX C

THE PARENTING SCALE (ARNOLD, O'LEARY, WOLFF, & ACKER, 1993)

At one time or another, all children misbehave or do things that could be harmful, that are "wrong," or that parents don't like. Examples include:

hitting someone
coming home late
lying
wanting a cookie before dinner

whining
forgetting homework
having a tantrum
arguing back

throwing food
not picking up toys
refusing to go to bed
running into the street

Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting

For each item, fill in the circle that best describes your style of parenting during the past two months.

SAMPLE ITEM:

At meal time ...

I let my child decide
how much to eat.

○—○—○—○—○—○—○

I decide how much
my child eats.

1. When my child misbehaves ...

I do something
right away.

○—○—○—○—○—○—○

I do something about
it later.

2. Before I do something about a problem ...

I give my child several
reminders or warnings.

○—○—○—○—○—○—○

I use only one reminder
or warning.

3. When I'm upset or under stress ...

I am picky and on my
child's back.

○—○—○—○—○—○—○

I am no more picky
than usual.

4. When I tell my child not to do something ...

I say very little.

○—○—○—○—○—○—○

I say a lot.

5. When my child pesters me ...

I can ignore
the pestering.

○—○—○—○—○—○—○

I can't ignore
the pestering.

6. When my child misbehaves ...

I usually get into a long
argument with my child.

○—○—○—○—○—○—○

I don't get into an
argument.

7. I threaten to do things that ...

I am sure I can
carry out.

○—○—○—○—○—○—○

I know I won't
actually do.

8. I am the kind of parent that . . .
 sets limits on what my child is allowed to do. ○—○—○—○—○—○—○
9. When my child misbehaves . . .
 I give my child a long lecture. ○—○—○—○—○—○—○
10. When my child misbehaves . . .
 I raise my voice or yell. ○—○—○—○—○—○—○
11. If saying no doesn't work right away . . .
 I take some other kind of action. ○—○—○—○—○—○—○
12. When I want my child to stop doing something . . .
 I firmly tell my child to stop. ○—○—○—○—○—○—○
13. When my child is out of my sight . . .
 I often don't know what my child is doing. ○—○—○—○—○—○—○
14. After there's been a problem with my child . . .
 I often hold a grudge. ○—○—○—○—○—○—○
15. When we're not at home . . .
 I handle my child the way I do at home. ○—○—○—○—○—○—○
16. When my child does something I don't like . . .
 I do something about it every time it happens. ○—○—○—○—○—○—○
17. When there's a problem with my child . . .
 things build up and I do things that I don't mean to do. ○—○—○—○—○—○—○
18. When my child misbehaves, I spank, slap, grab, or hit my child . . .
 never or rarely. ○—○—○—○—○—○—○
- lets my child do whatever he or she wants.
- I keep my talks short and to the point.
- I speak to my child calmly.
- I keep talking and try to get through to my child.
- I coax or beg my child to stop.
- I always have a good idea of what my child is doing.
- things get back to normal quickly.
- I let my child get away with a lot more.
- I often let it go.
- things don't get out of hand.
- most of the time.

Interactions Questionnaire

(Hoza, Milich, & Pelham, 1991
based on Sobol et al, 1989;
Bugental & Shennun, 1984)

Hoza-AO
page 1 of 8

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

Subject ID# _____ (for site use only) INTX page 2 of 8

g) He stopped interrupting because basically he is a good child.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

b) He stopped interrupting because he was in a good mood that day.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

i) He stopped interrupting because I am good at getting a child to follow directions.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

j) He stopped interrupting me because he made a special effort that day to please me.

Really True Not true at all

2) Suppose you ask your child to clean up his room and he does NOT do it. Why would this be?

a) He did not clean up his room because basically I am a bad parent.

[illegible]

b) He did not clean up his room because I am not good at getting a child to follow directions.

1 2 3 4 5 6 7 8 9 10

Really True Not true at all

c) He did not clean up his room because I did not make a special effort that day to get him to do it.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

d) He did not clean up his room because he is not good at following directions.

1 2 3 4 5 6 7 8 9 10

Really True Not true at all

Subject ID# _____ (for site use only) INTX page 3 of 8

e) He did not clean up his room because getting a child to clean up his room is hard.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

f) He did not clean up his room because he was in a bad mood that day.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

g) He did not clean up his room because I was in a bad mood that day.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

h) He did not clean up his room because basically he is a difficult child.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

i) He did not clean up his room because he did not make a special effort that day to please me.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

j) He did not clean up his room but I don't know why. It was just one of those things that I cannot explain.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

3) Suppose you ask your child to come in from playing outside and he does it. Why would this be?

a) He came in from playing outside but I don't know why. It was just one of those things that I cannot explain.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

b) He came in from playing outside because basically he is a good child.

1	2	3	4	5	6	7	8	9	10
Really									Not true
True									at all

Subject ID# _____ (site use only) INTX page 4 of 8

c) He came in from playing outside because I made a special effort that day to get him to do it.

Really True 1 2 3 4 5 6 7 8 9 10 Not true at all

d) He came in from playing outside because he is good at following directions.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

e) He came in from playing outside because getting a child to come in from playing outside is easy.

Really True 1 2 3 4 5 6 7 8 9 10 Not true at all

f) He came in from playing outside because he was in a good mood that day.

1 2 3 4 5 6 7 8 9 10
Really True Not true at all

g) He came in from playing outside because I am good at getting a child to follow directions.

Really True
1
2
3
4
5
6
7
8
9
10
 Not true at all

b) He came in from playing outside because I was in a good mood that day.

Really True 1 2 3 4 5 6 7 8 9 10 Not true at all

i) He came in from playing outside because basically I am a good parent.

[illegible]

j) He came in from playing outside because he made a special effort that day to please me.

1 2 3 4 5 6 7 8 9 10

Really True Not true at all

Subject ID# _____ (site use only)

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4) Imagine you are talking on the telephone and you ask your child to stop interrupting you and he does NOT stop. Why would this be?

a) He did not stop interrupting because getting a child to stop interrupting a phone call is hard.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

b) He did not stop interrupting because I was in a bad mood that day.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

c) He did not stop interrupting but I don't know why. It was just one of these things that I cannot explain.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

d) He did not stop interrupting because basically he is a difficult child.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

e) He did not stop interrupting because he was in a bad mood that day.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

f) He did not stop interrupting because he is not good at following directions.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

g) He did not stop interrupting because he did not make a special effort that day to please me.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

h) He did not stop interrupting because I did not make a special effort that day to get him to stop.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

Subject ID# _____ (site use only) INTX page 6 of 8

- i) He did not stop interrupting because I am not good at getting a child to follow directions.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

- j) He did not stop interrupting because basically I am a bad parent.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

- 5) Suppose you ask your child to come in from playing outside and he does NOT do it. Why would this be?

- a) He did not come in from playing outside because I am not good at getting a child to follow directions.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

- b) He did not come in from playing outside because basically he is a difficult child.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

- c) He did not come in from playing outside because I was in a bad mood that day.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at

- d) He did not come in from playing outside because getting a child to come in from playing outside is hard.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

- e) He did not come in from playing outside but I don't know why. It was just one of those things that I cannot explain.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

Subject ID# _____ (site use only) INTX page 7 of 8

f) He did not come in from playing outside because he was in a bad mood that day.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

g) He did not come in from playing outside because I did not make a special effort that day to get him to do it.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

h) He did not come in from playing outside because basically I am a bad parent.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

i) He did not come in from playing outside because he is not good at following directions.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

j) He did not come in from playing outside because he did not make a special effort that day to please me.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

6) Suppose you ask your child to clean up his room and he does it. Why would this be?

a) He cleaned up his room because getting a child to clean up his room is easy.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

b) He cleaned up his room because basically he is a good child.

1 2 3 4 5 6 7 8 9 10
Really Not true
True at all

Subject ID# _____ (site use only) INTX page 8 of 8

c) He cleaned up his room because basically I am a good parent.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

d) He cleaned up his room because he was in a good mood that day.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

e) He cleaned up his room because I was in a good mood that day.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

f) He cleaned up his room because I am good at getting a child to follow directions.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

g) He cleaned up his room because he is good at following directions.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

h) He cleaned up his room because I made a special effort that day to get him to do it.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

i) He cleaned up his room because he made a special effort that day to please me.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

j) He cleaned up his room but I don't know why. It was just one of those things that I cannot explain.
 1 2 3 4 5 6 7 8 9 10
 Really Not true
 True at all

APPENDIX E
HOLLINGSHEAD FOUR FACTOR INDEX OF SOCIAL STATUS (1975)

Hollingshead on SES

Page 3 of 3

7	Graduate degree
6	College education
5	Partial college (at least one year)
4	High school graduate
3	Partial high school (10 th or 11 th)
2	Junior high (9 th grade)
1	Less than 7 th grade

Points	Occupational Key
	<u>Occupational Category Score</u>
9	Higher executive, major professional, proprietor of big business
8	Administrator, less professional, proprietor of mid-sized business
7	Smaller business owner, farm owner, manager, minor professionals
6	Technicians, semiprofessional, small business owner
5	Clerical/sales, small farm/business owner
4	Skilled manual worker, craftsman, tenant farmer
3	Machine operator and semiskilled worker
2	Unskilled worker
1	Farm laborers and menial service workers (includes those dependent on welfare)

HOLLINGSHEAD FOUR FACTOR INDEX OF SOCIAL STATUS

Case A: Only one partner or single person employed:

FACTOR	SCALE SCORE	FACTOR WEIGHT	SCORE X WEIGHT
Occupation	_____	5	_____
Education	_____	3	_____
			Total: _____

Case B: Both husband and wife are gainfully employed:

HUSBAND'S FACTOR	SCALE SCORE	FACTOR WEIGHT	SCORE X WEIGHT
Occupation	_____	5	_____
Education	_____	3	_____
			Total: _____

WIFE'S FACTOR	SCALE SCORE	FACTOR WEIGHT	SCORE X WEIGHT
Occupation	_____	5	_____
Education	_____	3	_____
			Total: _____

Sum of Wife Total and Husband Total: _____

Divide Sum of Wife and Husband by 2: _____

Please print. Be sure to answer all items.		CHILD BEHAVIOR CHECKLIST FOR AGES 1½ - 5		[For office use only] DATE _____
CHILD'S FULL NAME	First _____ Middle _____ Last _____			
CHILD'S GENDER <input type="checkbox"/> Boy <input type="checkbox"/> Girl	CHILD'S AGE _____	CHILD'S ETHNIC OR RACE _____	PARENTS' USUAL TYPE OF WORK, when not working now. Please be specific—for example, auto mechanic, high school teacher, housewife, laborer, lather operator, shoe salesman, army sergeant. FATHER'S TYPE OF WORK _____ MOTHER'S TYPE OF WORK _____	
TODAY'S DATE Mo. _____ Date _____ Yr. _____	CHILD'S BIRTHDATE Mo. _____ Date _____ Yr. _____	THIS FORM FILLED OUT BY: (print your full name) _____		

Please fill out this form to reflect your view of the child's behavior even if other people might not agree. Feel free to write additional comments beside each item and in the space provided on page 2. ***Be sure to answer all items.***

Below is a list of items that describe children. For each item that describes the child now or within the past 2 months, please circle the 1 if the item is ***very true or often true*** for the child. Circle the 2 if the item is ***somewhat or sometimes true*** of the child. If the item is ***not true*** of the child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to the child.

0 = Not True (as far as you know)
 1 = Somewhat or Sometimes True
 2 = Very True or Often True

0 1 2 1. Aches or pains (without medical cause; do not include stomach or headaches) 0 1 2 2. Acts too young for age 0 1 2 3. Afraid to try new things 0 1 2 4. Avoids looking others in the eye 0 1 2 5. Can't concentrate; can't pay attention for long 0 1 2 6. Can't sit still, restless, or hyperactive 0 1 2 7. Can't stand having things out of place 0 1 2 8. Can't stand waiting; wants everything now 0 1 2 9. Chews on things that aren't edible 0 1 2 10. Clings to adults or too dependent 0 1 2 11. Constantly seeks help 0 1 2 12. Constipated, doesn't move bowels (when not sick) 0 1 2 13. Cries a lot 0 1 2 14. Cruel to animals 0 1 2 15. Defiant 0 1 2 16. Demands must be met immediately 0 1 2 17. Destroys his/her own things 0 1 2 18. Destroys things belonging to his/her family or other children 0 1 2 19. Diarrhea or loose bowels (when not sick) 0 1 2 20. Disobedient 0 1 2 21. Disturbed by any change in routine 0 1 2 22. Doesn't want to sleep alone 0 1 2 23. Doesn't answer when people talk to him/her 0 1 2 24. Doesn't eat well (describe): _____ 0 1 2 25. Doesn't get along with other children 0 1 2 26. Doesn't know how to have fun; acts like a little adult 0 1 2 27. Doesn't seem to feel guilty after misbehaving 0 1 2 28. Doesn't want to go out of home 0 1 2 29. Easily frustrated	0 1 2 30. Enviously jealous 0 1 2 31. Eats or drinks things that are not food—don't include sweets (describe): _____ 0 1 2 32. Fears certain animals, situations, or places (describe): _____ 0 1 2 33. Feelings are easily hurt 0 1 2 34. Gets hurt a lot, accident-prone 0 1 2 35. Gets in many fights 0 1 2 36. Gets into anything 0 1 2 37. Gets too upset when separated from parents 0 1 2 38. Has trouble getting to sleep 0 1 2 39. Headaches (without medical cause) 0 1 2 40. Hits others 0 1 2 41. Holds his/her breath 0 1 2 42. Hurts animals or people without meaning to 0 1 2 43. Looks unhappy without good reason 0 1 2 44. Angry moods 0 1 2 45. Nausea, feels sick (without medical cause) 0 1 2 46. Nervous movements or twitching (describe): _____ 0 1 2 47. Nervous, highstrung, or tense 0 1 2 48. Nightmares 0 1 2 49. Overeating 0 1 2 50. Overlarded 0 1 2 51. Shows panic for no good reason 0 1 2 52. Painful bowel movements (without medical cause) 0 1 2 53. Physically attacks people 0 1 2 54. Picks nose, skin, or other parts of body (describe): _____ 0 1 2 55. Sleeps in bed with someone else (describe): _____
---	---

Be sure you have answered all items. Then see other side.

Please print your answers. Be sure to answer all items.

0 = Not True (as far as you know)		1 = Somewhat or Sometimes True	2 = Very True or Often True
0	1 2	55. Plays with own sex parts too much	0 1 2 79. Rapid shifts between sadness and excitement
0	1 2	56. Poorly coordinated or clumsy	0 1 2 80. Strange behavior (describe): _____
0	1 2	57. Problems with eyes (without medical cause) (describe): _____	0 1 2 81. Stubborn, sullen, or irritable
0	1 2	58. Punishment doesn't change behavior	0 1 2 82. Sudden changes in mood or feelings
0	1 2	59. Quickly shifts from one activity to another	0 1 2 83. Sifts a lot
0	1 2	60. Rash or other skin problems (without medical cause)	0 1 2 84. Talks or cries out in sleep
0	1 2	61. Refuses to eat	0 1 2 85. Temper tantrums or hot temper
0	1 2	62. Refuses to play active games	0 1 2 86. Too concerned with neatness or cleanliness
0	1 2	63. Repeatedly rocks head or body	0 1 2 87. Too fearful or anxious
0	1 2	64. Resists going to bed at night	0 1 2 88. Uncooperative
0	1 2	65. Resists toilet training (describe): _____	0 1 2 89. Underactive, slow moving, or lacks energy
0	1 2	66. Screams a lot	0 1 2 90. Unhappy, sad, or depressed
0	1 2	67. Seems unresponsive to affection	0 1 2 91. Unusually loud
0	1 2	68. Self-conscious or easily embarrassed	0 1 2 92. Upset by new people or situations (describe): _____
0	1 2	69. Selfish or won't share	0 1 2 93. Vomiting, throwing up (without medical cause)
0	1 2	70. Shows little affection toward people	0 1 2 94. Wakes up often at night
0	1 2	71. Shows little interest in things around him/her	0 1 2 95. Wanders away
0	1 2	72. Shows too little fear of getting hurt	0 1 2 96. Wants a lot of attention
0	1 2	73. Too shy or timid	0 1 2 97. Whining
0	1 2	74. Sleeps less than most children during day and/or night (describe): _____	0 1 2 98. Withdrawn, doesn't get involved with others
0	1 2	75. Smears or plays with bowel movements	0 1 2 99. Worries
0	1 2	76. Speech problem (describe): _____	100. Please write in any problems the child has that were not listed above.
0	1 2	77. Stares into space or seems preoccupied	0 1 2 _____
0	1 2	78. Stomachaches or cramps (without medical cause)	0 1 2 _____

Please be sure you have answered all items.
 Underline any you are concerned about.

Does the child have any illness or disability (either physical or mental)? ☐ No ☐ Yes—Please describe:

What concerns you most about the child?

Please describe the best things about the child:

LANGUAGE DEVELOPMENT SURVEY FOR AGES 18-35 MONTHS

For office use only
ID # _____

The Language Development Survey assesses children's word combinations and vocabulary. By carefully completing the Language Development Survey, you can help us obtain an accurate picture of your child's developing language. *Please print your answers. Be sure to answer all items.*

- I. Was your child born earlier than the usual 9 months after conception?
☐ No ☐ Yes—how many weeks early? _____ weeks early.
- II. How much did your child weigh at birth? _____ pounds _____ ounces or _____ grams.
- III. How many ear infections did your child have before age 24 months?
☐ 0-2 ☐ 3-5 ☐ 6-8 ☐ 9 or more
- IV. Is any language beside English spoken in your home?
☐ No ☐ Yes—please list the languages: _____

- V. Has anyone in your family been slow in learning to talk?
☐ No ☐ Yes—please list their relationships to your child; for example, brother, father:

- VI. Are you worried about your child's language development?
☐ No ☐ Yes—why? _____
- VII. Does your child spontaneously say words in any language? (not just imitates or understands words)?
☐ No ☐ Yes—if yes, please complete item VIII and page 4.
- VIII. Does your child combine 2 or more words into phrases? For example: "more cookie," "car bye-bye."
☐ No ☐ Yes—please print 5 of your child's longest and best phrases or sentences.
For each phrase that is not in English, print the name of the language.
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____

Be sure you have answered all items. Then see other side.

Please circle each word that your child says SPONTANEOUSLY (not just imitates or understands). If your child says non-English versions of words on the list, circle the English word and write the first letter of the language (e.g., S for Spanish). Please include words even if they are not pronounced clearly or are in "baby talk" (for example: "baba" for bottle).

FOODS	ANIMALS	ACTIONS	HOUSEHOLD	MODIFIERS	OTHER
1. apple	55. bear	107. bath	163. bathnub	216. all gone	264. any letter
2. banana	56. bee	108. breakfast	164. bed	217. all right	265. away
3. bread	57. bird	109. bring	165. blanket	218. bad	266. boo-boo
4. butter	58. bug	110. catch	166. bottle	219. big	267. byebye
5. cake	59. bunny	111. clap	167. bowl	220. black	268. excuse me
6. candy	60. cat	112. close	168. chair	221. blue	269. here
7. cereal	61. chicken	113. come	169. clock	222. broken	270. hi, hello
8. cheese	62. cow	114. cough	170. crib	223. clean	271. in
9. coffee	63. dog	115. cut	171. cup	224. cold	272. me
10. cookie	64. duck	116. dance	172. door	225. dark	273. meow
11. crackers	65. elephant	117. dinner	173. floor	226. dirty	274. my
12. drink	66. fish	118. doodoo	174. fork	227. dry	275. myself
13. egg	67. frog	119. down	175. glass	228. good	276. nighttime
14. food	68. horse	120. eat	176. knife	229. happy	277. no
15. grapes	69. monkey	121. feed	177. light	230. heavy	278. off
16. gum	70. pig	122. finish	178. mirror	231. hot	279. on
17. hamburger	71. puppy	123. fix	179. pillow	232. hungry	280. out
18. hotdog	72. snake	124. get	180. plate	233. little	281. please
19. ice cream	73. tiger	125. give	181. potty	234. mine	282. Sesame St.
20. juice	74. turkey	126. go	182. radio	235. more	283. shut up
21. meat	75. turtle	127. have	183. room	236. nice	284. thank you
22. milk		128. help	184. sink	237. pretty	285. there
23. orange	BODY PARTS	129. hit	185. soap	238. red	286. under
24. pizza	76. arm	130. hug	186. spoon	239. stinky	287. welcome
25. pretzel	77. belly button	131. jump	187. stairs	240. that	288. what
26. raisins	78. bottom	132. kick	188. table	241. this	289. where
27. soda	79. chin	133. kiss	189. telephone	242. tired	290. why
28. soup	80. ear	134. knock	190. towel	243. wet	291. woodwoof
29. spaghetti	81. elbow	135. look	191. trash	244. white	292. yes
30. tea	82. eye	136. love	192. T.V.	245. yellow	293. you
31. toast	83. face	137. lunch	193. window	246. yucky	294. yumyum
32. water	84. finger	138. make			295. any number
	85. foot	139. nap	PERSONAL	CLOTHES	PEOPLE
TOYS	86. hair	140. open	194. brush	247. belt	296. aunt
33. ball	87. hand	141. outside	195. comb	248. boots	297. baby
34. balloon	88. knee	142. pancake	196. glasses	249. coat	298. boy
35. blocks	89. leg	143. peekaboo	197. key	250. diaper	299. daddy
36. book	90. mouth	144. peep	198. money	251. dress	300. doctor
37. crayons	91. neck	145. push	199. paper	252. gloves	301. girl
38. doll	92. nose	146. read	200. pen	253. hat	302. grandma
39. picture	93. teeth	147. ride	201. pencil	254. jacket	303. grandpa
40. present	94. thumb	148. run	202. penny	255. mittens	304. lady
41. slide	95. toe	149. see	203. pocketbook	256. pajamas	305. man
42. swing	96. tummy	150. show	204. tissue	257. pants	306. mommy
43. teddy bear		151. shut	205. toothbrush	258. shirt	307. own name
	VEHICLES	152. sing	206. umbrella	259. shoes	308. pet name
OUTDOORS	97. bike	153. sit	207. watch	260. slippers	309. uncle
44. flower	98. boat	154. sleep		261. sneakers	310. name of TV
45. house	99. bus	155. stop	PLACES	262. socks	character
46. moon	100. car	156. take	208. church	263. sweater	
47. rain	101. motorcycle	157. throw	209. home		
48. sidewalk	102. plane	158. tickle	210. hospital		
49. sky	103. stroller	159. up	211. library		
50. snow	104. train	160. walk	212. park		
51. star	105. trolley	161. want	213. school		
52. street	106. truck	162. wash	214. store		
53. sun			215. zoo		
54. tree					

Other words your child says, including non-English words:

APPENDIX G THERAPY ATTITUDE INVENTORY (EYBERG, 1993)

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Appendix

THERAPY ATTITUDE INVENTORY

Child's Name _____ Parent's Name _____ Date _____

Directions: Please circle the response for each question which best expresses how you honestly feel.

1. Regarding techniques of disciplining, I feel I have learned
 1. nothing
 2. very little
 3. a few new techniques
 4. several useful techniques
 5. very many useful techniques
2. Regarding techniques for teaching my child new skills, I feel I have learned
 1. nothing
 2. very little
 3. a few new techniques
 4. several useful techniques
 5. very many useful techniques
3. Regarding the relationship between myself and my child, I feel we get along
 1. much worse than before
 2. somewhat worse than before
 3. the same as before
 4. somewhat better than before
 5. very much better than before
4. Regarding my confidence in my ability to discipline my child, I feel
 1. much less confident
 2. somewhat less confident
 3. the same
 4. somewhat more confident
 5. much more confident
5. The major behavior problems that my child presented at home before the program started are at this time
 1. considerably worse
 2. somewhat worse
 3. the same
 4. somewhat improved
 5. greatly improved
6. I feel that my child's compliance to my commands or requests is at this time
 1. considerably worse
 2. somewhat worse
 3. the same
 4. somewhat improved
 5. greatly improved
7. Regarding the progress my child has made in his/her general behavior, I am
 1. very dissatisfied
 2. somewhat dissatisfied
 3. neutral
 4. somewhat satisfied
 5. very satisfied
8. To what degree has the treatment program helped with other general personal or family problems not directly related to your child in the program?
 1. hindered much more than helped
 2. hindered slightly
 3. neither helped nor hindered
 4. helped somewhat
 5. helped very much
9. I feel the type of program that was used to help me improve the behavior of my child was
 1. very poor
 2. poor
 3. adequate
 4. good
 5. very good
10. My general feeling about the program I participated in, is
 1. I disliked it very much
 2. I disliked it somewhat
 3. I feel neutral
 4. I liked it somewhat
 5. I liked it very much

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APPENDIX H
SEMI STRUCTURED QUESTIONNAIRE (ELDER, 1995)

Baseline Questionnaire

1. How typical was the child's behavior during this session?

1	2	3	4	5
Very typical				Not typical at all

2. Do you think that the presence of the camera and/or investigator affected how you or your child did in this session?

1	2	3	4	5
Not affecting at all				Affecting very much

Questionnaire Following Parent Training

1. How typical was your child's behavior during this session?

1	2	3	4	5
behavior very typical				behavior not typical at all

2. Do you think that the presence of the camera and/or investigator affected how you or your child did in this session?

1	2	3	4	5
camera/investigator not affecting at all			camera/investigator affecting very much	

3. Do you think that the training you are using with your child is working?

1	2	3	4	5
training working very well			training not working well at all	

4. Are you using what you have learned at times other than the videotaped session?

1	2	3	4	5
used very often				not using at all

5. How comfortable are you using the strategies that you were taught?

1	2	3	4	5
very comfortable with skill			no comfortable with skill	

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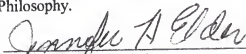
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BIOGRAPHICAL SKETCH

Deborah Ann White is a pediatric nurse practitioner with nursing experience that spans almost three decades. She is currently providing primary health care to pediatric patients in a community health care center in Sanford, Florida. Deborah received her undergraduate degree from West Liberty State College. She graduated with a master's degree from the University of Florida as a clinical specialist in community health nursing and as a pediatric nurse practitioner. Deborah received certification from the Pediatric Nursing Certification Board and has been active in local and national nursing organizations. She served as the President and President-elect (1999-2003) for the local National Pediatric Nurse Practitioner Association (NAPNAP) chapter and was nominated for the National Office of Chapter's Coordinator in the upcoming NAPNAP 2004 spring election.

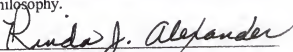
Deborah was inducted as a member of Sigma Theta Tau, (Alpha Theta Chapter) and is active in the Florida Nurses Association. She completed her Doctor of Philosophy in May, 2004 at the University of Florida. Deborah was the recipient of a Pre-doctoral National Research Service Award from the National Institute of Nursing Research for her research with fathers and children with Attention Deficit Hyperactivity Disorder. She has spoken at local and national conferences on health-related issues.

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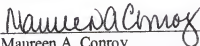
Jennifer H. Elder, Chair
Associate Professor of Nursing

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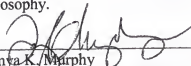
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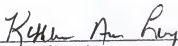
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Tanya K. Murphy
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This dissertation was submitted to the Graduate Faculty of the College of Nursing and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May, 2004



Dean, College of Nursing

Dean, Graduate School

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